

1959-60

PARLIAMENT OF NEW SOUTH WALES

REPORT
OF THE
Director-General of Public Health
For 1958

BY COMMAND

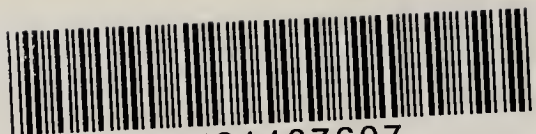
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CONTENTS

Letter of Presentation to the Hon. W. F. Sheahan, Q.C., LL.B., M.L.A., Minister for Health	PAGE 7
Vital Statistics, 1958: Extract from the Report of the Deputy Commonwealth Statistician (Mr. K. Davison) on Vital Statistics for 1958	14

SECTION I

A. COMMUNICABLE DISEASES

Return of Diseases notifiable under the Public Health Acts for the year ended 31st December, 1958 ..	18
Venereal Diseases Act, 1918, Public Health Act, 1902-1952: Report by the Director, Division of Epidemiology (Dr. H. C. Johnston)	26
Poliomyelitis Vaccination Campaign, N.S.W. (Acute Anterior Poliomyelitis): Report by Dr. E. S. A. Myers	33

B. PUBLIC HEALTH ADMINISTRATION

Report of the Government Analyst (Mr. E. S. Ogg)	36
Pure Food Act, 1908-1958: Report of Chief Inspector (Mr. W. J. Madgwick)	41
Report of Health Inspection Branch (Chief Inspector, Mr. K. R. Horne)	47
Private Hospitals Act, 1908-1954: Report by Dr. A. J. Hope	48
Medico-Legal Section—	
Report of Government Medical Officer for Sydney (Dr. C. E. Percy)	50
Report of Government Medical Officer for Newcastle (Dr. P. A. Rundle)	51
Health Education and Public Relations (Mr. G. Slough)	51

C. NUTRITION

Report of Nutrition Section	53
-------------------------------------	----

D. DIVISION OF MATERNAL AND BABY WELFARE

Report of Director (Dr. Grace J. Browne) —	
Part I, Maternal Welfare	55
Part II, Infant Welfare	61
Part III, Pre-school Health Service	65

E. TUBERCULOSIS

Report of Director of Division of Tuberculosis (Dr. Marshall Andrew)	66
--	----

F. INDUSTRIAL HYGIENE

Report of Director (Dr. A. Bell)	76
--	----

G. SCHOOL MEDICAL SERVICE

Report of Director School Medical Service (Dr. E. S. A. Meyers)	101
---	-----

H. DENTAL SERVICES

Report of Director Dental Services (Mr. W. B. Haymet)	113
---	-----

I. PHYSICALLY HANDICAPPED PERSONS

Consultative Council for the Physically Handicapped: Report by Dr. M. Bertram	118
---	-----

SECTION II—MEDICAL OFFICERS OF HEALTH

Metropolitan Health District (Dr. J. J. Donnellan)	121
Hunter River Health District (Dr. T. L. Dunn)	124
South Coast Health District (Dr. A. J. Geoffroy)	128
Mitchell Health District (Dr. E. Wallace)	134
Richmond-Tweed Health District (Dr. H. R. Dugdale)	140
Broken Hill and District (Dr. J. T. Cullen)	143

SECTION III—STATE HOSPITALS AND HOMES

Lidcombe State Hospital and Home	145
Strickland Convalescent Home, Vacluse	146
Liverpool State Hospital and Home	147
Newington State Hospital and Home	147
Randwick Chest Hospital	148
Garrawarra Hospital, Waterfall	151
David Berry Hospital	152
Leper Lazaret	153
State Hospitals, etc.: Financial Statistical Summary	155

SECTION IV—PATHOLOGICAL LABORATORY

Report of Director, Pathological Laboratories (Dr. F. Fraser)	156
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DEPARTMENT OF PUBLIC HEALTH, NEW SOUTH WALES

Office of the Director-General of Public Health, 52 Bridge Street, Sydney

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DIVISIONS AND BRANCHES

The following Divisions are controlled by the Director-General of Public Health: Maternal and Baby Welfare; Tuberculosis; School Medical Service; Dental Services; Epidemiology; Industrial Hygiene; Government Medical Officer for Sydney; Medical Officers of Health, Metropolitan, Newcastle, South Coast, Mitchell, Richmond-Tweed and Broken Hill Districts; Microbiological Laboratory; Chemical Laboratory; Health Education; Pure Food; Health Inspection; etc.

The Hospital Division comprises the David Berry Hospital; three State Hospitals and Homes; Strickland Convalescent Hospital, Vaucluse; Randwick Chest Hospital; Garrawarra Hospital, Waterfall.

LEGISLATIVE ENACTMENTS

The Minister for Health is charged with the administration of the following Acts, for the promotion of the Public Health, execution of which is left to the Director-General of Public Health and the staff working under his control: Food Preservation by Sulphur Dioxide Enabling Act, 1920; Noxious Trades Act, 1902-1944; Private Hospitals Act, 1908-1954; Public Health Act, 1902-1952; Pure Food Act, 1908-1958; King George V and Queen Mary Maternal and Infant Welfare Foundation Act, 1937; Venereal Diseases Act, 1918; Burials in closed cemeteries and the exhumation of bodies for the purpose of re-interment, etc., are also dealt with.



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Report of the Director-General of Public Health

TO

The Honourable The Minister for Health

(The Hon. W. F. SHEAHAN, Q.C., LL.B., M.L.A.)

Sir,

I have the honour to present the Annual Report for the year ended 31st December, 1958, in respect of the work of this Office on behalf of my predecessor, Dr. H. G. Wallace, to whose term it relates:—

VITAL STATISTICS

The vital statistics of New South Wales for the year 1958 have been prepared by the Deputy Commonwealth Statistician, Mr. K. Davison.

The population at the end of 1958 was 3,725,686. During the year the increase in population, by excess of births over deaths, was 47,695 and by migration 17,494, making a total increase for the year of 65,189. The total live births were 80,045, equivalent to 21.67 per 1,000 of the mean population, which rate is 0.4 per cent. below the average for the previous five years. The number of stillbirths registered was 1,208, equal to 0.33 per 1,000 of the population. Deaths during the year numbered 32,350, equivalent to a rate of 8.76 per 1,000 of population. The rate is 6.6 per cent. below the average of the previous five years. The number of children under 1 year of age who died was 1,704, equal to 21.29 per 1,000 live births. Again the rate for the Metropolis was considerably lower than that for the remainder of the State. The infantile mortality rate for 1958 is 12 per cent. below the average of the previous five years.

INFECTIOUS DISEASES

Staphylococcal Mastitis, Staphylococcal Pneumonia and Staphylococcal Diseases in infants under four weeks of age were added to the list of notifiable diseases under the Public Health Act, 1902, (as amended) on 19th September, 1958.

The number of cases of infectious diseases notified during the year was 6,015 (728 more than in 1957).

Typhoid Fever.—17 cases, (one death), were notified compared with 6 cases (no deaths) in 1957.

Scarlet Fever.—The total of notifications made was 703, compared with 485 cases (no deaths) in 1957.

Diphtheria.—A total of 28 cases (1 death) was the lowest on record.

Acute Anterior Poliomyelitis.—There were 23 cases (no deaths), whilst in 1957 there were 58 cases (4 deaths). The Report of the Director of the Poliomyelitis Vaccination Campaign should be referred to for further information.

Infectious Hepatitis.—3,261 cases (17 deaths) were notified compared with 2,400 cases (27 deaths) in 1957.

TUBERCULOSIS DIVISION

A total of 1,399 new cases of Tuberculosis (all forms) during 1958 were notified, a reduction of 250 cases compared with 1957. A total of 190 persons died from the disease. Whilst the reduction is heartening, the use of extensive resources and the co-operation of the community at large continues to be necessary to combat this scourge.

During 1958, 237,694 X-rays of persons were taken by the Division including 29,390 at the Chest X-ray Centre, 697 George Street, Sydney, and the remainder of 203,660 in Mass X-ray Surveys in the metropolitan and country areas. A total of 55 new active cases were detected in this way and a further 240 cases are still under investigation as possible cases. These figures do not include those relevant to the work of the Anti-Tuberculosis Association of New South Wales which made extensive contributions in this field.

The Epidemiology Section continued its wide activities and during the twelve months ended 30th June, 1958, 123,722 school pupils and 5,733 other persons were Mantoux tested, largely in the North Coast area of the State. This contributed to the detection of 29 persons with active tuberculosis. The number of persons receiving B.C.G. Vaccine during the period was 3,180.

The Visiting Nursing Service, which now comprises the Domiciliary and Nursing Services is conducted by two medical officers and twenty-eight nurses. These personnel conduct four Chest Clinics in the Sydney metropolitan area and twenty-four clinics in country districts. There were 33,264 visits in the metropolitan area during the year.

The average daily number of hospital beds occupied by tuberculosis patients during the year ended 30th June, 1958, was 893.

Due to the diminution of demand for beds for tuberculous patients during the period, the bed potential was reduced and the beds concerned converted for other purposes, primarily to relieve the general community need for beds relating to chronically ill and long term patients.

The Tuberculosis Arrangement between the Commonwealth and this State, which provides for the assumption of financial responsibilities for the Tuberculosis Campaign primarily by the Commonwealth, expired on 30th June, 1958, and was renewed substantially on the same lines.

DIVISION OF EPIDEMIOLOGY

The recording and follow up of notifications of infectious diseases under the Public Health Act, 1902, (as amended) has continued throughout the year. This work is most important also in providing material for regular assessment of trends and the formulation of policies in relation to notifiable infectious diseases.

Despite population growth, including that from migration, there was a reduction of 76 in the total of notifications of venereal diseases in 1958 compared with 1957, whilst there had previously been an increase annually in notifications for the years 1955, 1956 and 1957. There were 234 notifications of syphilis (sex ratio 3.1 males to 1 female) and 2,024 cases of gonorrhoea (sex ratio 10.5 males to 1 female) during 1958.

Prophylactic facilities, which are continuously available for males at the Division's Clinic in Albert Street, Sydney, provided 22,496 treatments during the year.

POLIOMYELITIS VACCINATION CAMPAIGN

A total of 3,484,062 doses of vaccine were issued for vaccinations by Councils and other bodies during 1958 in the campaign against Poliomyelitis.

Of the total of 23 cases of poliomyelitis notified, eleven only were considered after investigation to be poliomyelitis and two cases only had received any prior vaccination, which was incomplete in each case, one injection only having been given.

The public response has been somewhat apathetic in certain age groups despite constant encouragement.

CONSULTATIVE COUNCIL FOR PHYSICALLY HANDICAPPED PERSONS

The work of assistance in the treatment and after care of poliomyelitis sufferers and other physically handicapped persons has been extended during 1958. The provision on loan of devices to persons for occupational and training purposes has become a feature of assistance and the appointment of a full-time Occupational Therapist has enabled 682 home visits to handicapped persons during the year.

The Council's work was carried on in close liaison with various other agencies concerned with these activities.

PATHOLOGICAL LABORATORIES

The volume of work carried out by these Laboratories has continued to increase with a total of 178,592 examinations during 1958, compared with 162,900 in 1957.

The sections of the Laboratories comprise Bacteriology, Human Pathology, Venereal Serology and Biochemistry.

The proposed new Institute of Clinical Pathology and Medical Research is under construction in the grounds of Lidcombe State Hospital and is planned to absorb a considerable proportion of the work of the existing Laboratories which is inadequate in terms of accommodation and other resources for the demands placed upon it in connection with diagnostic and general public Health pathology and hygiene.

The new Institute is expected to commence operations about the middle of 1960.

DIVISION OF INDUSTRIAL HYGIENE

The activities of this Division have continued to expand during the year.

The Division maintained a close liaison with the Department of Labour and Industry, Mines Department, Chief Secretary's Department, Local Government Department, Joint Coal Board, the Standards' Association and other bodies in matters of mutual interest involving Committee work, inspections and other advisory activities.

Extensive studies were carried out in relation to atmospheric pollution during the period involving the full-time activities of two graduate officers and one assistant.

Surveys and investigations included those in relation to lead processes, Plastics, Solvents, Tuluol, Acids, Gases, Insecticides, Cyanide, Fluorides, Silicosis Dust, Dermatitis, Radioactive Substances, Noise, Asthma in the Printing Industry, health hazards in Welding and Electroplating.

Details of the above and other matters should be referred to in the Director's Report.

DIVISION OF MATERNAL AND BABY WELFARE

During the year the infantile mortality rate relating to infant deaths during the first year of life was 21.29 per 1,000 live births the lowest recorded for the State. The rate for the metropolitan area only was 20.03 and that for the remainder of the State was 22.52. Live births were 80,045 and stillbirths 1,208. A decrease of infant deaths under one week from 1,136 in 1957 to 1,055 in 1958, is considered by the Director to be possible due to improved standards of pre-natal care, a matter of active interest to the Division. Attendances at Pre-Natal Clinics in 1958 totalled 15,175 under medical supervision.

In relation to Maternal Mortality, the total of Puerperal Deaths, including Criminal Abortion (3 deaths), was 52.

At the conclusion of the year there were 350 Baby Health Centres in existence in New South Wales at which a total of 1,048,847 attendances were recorded. Further expansion of these services is necessary commensurate with the growth of population and new areas. The Department pays a capital subsidy of 75 per cent. towards the cost of constructing and equipping Centres (excluding the site).

Other matters including Free Consultant Services, Mobile Blood Transfusion Service and staphylococcal infection of the newly born are referred to in the Report of the Director.

SCHOOL MEDICAL SERVICE

An important step during 1958 was the establishment of the first Child Health Centre at Forest Lodge to provide facilities for a continuous health service (catering for physical and mental defects) for some 45,000 school children in its area.

A pilot scheme involving the services of local medical practitioners conducted by Lyndhurst Shire Council under the supervision of the Service utilising local resources for the examination of school children was undertaken successfully. Further expansion of the scheme is under consideration in an endeavour to assist in the work of adequate periodical examination of school children. Otherwise an expansion of the Medical Staff of the Division is contemplated to meet the expanding needs in this large field. A total of 152,620 examinations of school children were performed during the year comprising 20.52 of the school population.

During visits to schools, the accommodation was considered satisfactory in 86.5 per cent. of schools visited and the sanitation unsatisfactory in 27.3 per cent. of them, which is a considerable improvement compared with previous years.

The work of Child Guidance Clinics continued throughout the year and deficiencies in facilities are under consideration by a special Committee.

Speech Therapy Clinics were operating in eight Public Schools in the metropolitan area, but it has not yet been possible to provide similar facilities for country school children.

The Asthma and Hearing Clinics continued their services during the year. Medical examinations of 6,801 prospective entrants to and members of the Teaching Service were undertaken.

DIVISION OF DENTAL SERVICES

Recruitment of Dentists posed a severe problem during 1958 and only fourteen of the establishment of twenty-six were available for the complete school year.

A total of 35,007 school children were examined of a total of 50,499, which also included services to Government Institutions.

Of the school children examined, 29,083 were surveyed as to dental caries incidence which was found to be 93.3 per cent. in the 6-9 age group.

The institution of a Special Committee to consider the development of the School Dental Service is timely due to the expanding demands being placed upon it.

CHEMICAL LABORATORY

A total of 25,066 samples were examined in this Laboratory during the year, including 19,977 collected in connection with the administration of the Pure Food Act and the remainder were relative to the activities of other Public Service and Miscellaneous Authorities.

The largest item was the examination of milk samples (10,913), of which 4.20 per cent. contravened the standard under the Pure Food Act. Country milk samples were found to be adulterated in the ratio of 9.20 per cent. of the total, compared with 3.17 per cent. in the metropolitan area.

Other work included the examination of 354 exhibits in relation to crime detection by the Police Department and 1,426 exhibits relevant to deaths which were the subject of Coronial Inquiries.

FOOD INSPECTION

In pursuance of the Pure Food Act, 1908 (as amended), this Branch undertakes the general supervision work in respect of standards required to secure the wholesomeness, cleanliness and freedom from contamination of food and drugs.

The quantity of food seized and destroyed as unfit for human consumption was approximately 112 tons, apart from 6,511 head of poultry destroyed.

Legal proceedings for breaches of the Pure Food Act were instituted in 1,322 cases, yielding £11,271 13s. 0d. in fines and costs imposed.

Notices were served in 371 instances in respect of a total of 7,345 premises inspected.

HEALTH INSPECTION BRANCH

The Branch dealt with 50,235 applications for searches in connection with Unhealthy Building Land notified under the Public Health Act, 1902-1952. Six new areas were added and two revoked.

Its resources otherwise were primarily devoted to the investigation of applications to install septic tanks and closets referred by Local Authorities for recommendation. The overall increase, compared with 1957, numbered 4,619.

Subsequent to the adoption by the Board of Health in November, 1958, of the policy of recommending applications for the installation of single treatment septic tanks where the site was suitable, the use of the less convenient septic closets and the more expensive septic tank with aeration chamber became less popular.

Other work included Noxious Trades inspections, investigation of complaints, town and sanitary depot inspections. Of the latter, 47 new sites were approved by the Board.

Difficulties in recruiting staff have curtailed more extensive field work on town sanitary surveys relative to environmental sanitation.

PRIVATE HOSPITALS AND REST HOMES

There are now in New South Wales 232 licensed Rest Homes with 4,276 beds and 184 licensed Private Hospitals with 3,465 beds, the latter figure reflecting a growth of 840 beds since 1953.

Similar figures for 1953 are not available for Rest Homes as this class of accommodation was not licensed at that time.

Overcrowding tendencies existing at the close of 1958 reflected a nett demand for further expansion of these two types of accommodation.

MEDICAL-LEGAL SECTIONS AND HOSPITALS ADMISSION DEPOT

Medical examinations were performed in respect of Police recruits and other personnel by the Government Medical Officers of Health at Sydney and Newcastle. Medico-Legal work included the performance of autopsies for the appropriate Coroners upon request in cases of violent deaths, &c., examination of victims of criminal assaults and giving evidence in Court.

At Newcastle, the examination and certification of insane patients was carried out.

The Hospitals Admission Depot arranged the admission of 6,920 persons to metropolitan State and Chronic Hospitals and Convalescent Homes during the year. Removal by Ambulance of 9,447 persons was also arranged.

HEALTH EDUCATION AND PUBLIC RELATIONS

The activities of the Publicity Branch during the year included Press articles for publication on matters of topical interest; material and the services of Officers for broadcasting on a wide variety of subjects; the arrangements for the appearance of Officers in Telecasts, including regular appearances on the Sydney National Station (ABN); the distribution of 549,287 copies of books, pamphlets and posters containing information on a wide range of health topics to the general public; the use of the medium of outdoor advertising in public places and on vehicles of public transport.

Films from the Branch's Library were screened to audiences throughout the State of 95,716 persons.

The Branch's resources are actively engaged, along with personnel of other Divisions concerned, in endeavouring to influence public opinion to more generally participate in Health Campaigns. It is to be hoped that this work will continue to bear fruit.

NUTRITION SECTION

The preparation of expert script material and other work for health educational activities was undertaken regularly during the year. This information, through the media of press and radio, is widely distributed and in view of the value of establishing sound dietary habits is considered to be most useful.

A number of booklets was also revised and a new one specifically catering for the diet of elderly persons was prepared.

The expert advisory service available was constantly sought in numerous verbal and written enquiries from the public, professional persons, organisations, etc., which were attended to. These included the revision of menus in various institutions.

HEALTH DISTRICTS

Metropolitan Health District

There was an estimated mean population as at 30th June, 1958, of 1,889,864 in the District.

Diseases of the heart accounted for 7,168 deaths in the metropolitan area and was the chief cause of death, malignant neoplasms was next with 3,075 deaths.

There were 246 deaths due to suicide, 30 due to homicide and 832 due to accidents.

Forty-five deaths occurred in the District due to notifiable infectious diseases of which the greatest single cause was infantile diarrhoea (17).

Infectious Hepatitis continued in epidemic form with 1,289 cases (eight deaths), compared with 1,130 cases (18 deaths) in 1957.

The Metropolitan Medical Officer of Health has reported that whilst the incidence of notifiable infectious diseases is relatively low there is no room for complacency in the District and constant vigilance is necessary.

The work of supervising and advising Local Authorities in respect of environmental sanitation was extended during the year including the investigation of a great number of complaints. The latter often stem from such precipitating factors as lack of drainage and sewerage facilities and shortage of housing accommodation.

There has been a growing tendency by Councils (four to date) to tip nightsoil direct into the Metropolitan Water, Sewerage and Drainage Board's mains which offer some solution of the problem of overloading of existing nightsoil disposal facilities.

The introduction of the single chamber septic tank during the year has also met with extensive use for nightsoil disposal.

Hunter River Health District

Population as at 30th June was estimated at 302,010.

The total of notifications of infectious diseases in the District in 1958 was 370 cases (32 deaths); the principal cause of death among these being Tuberculosis (24 deaths).

The Medical Officer of Health has reported that unsatisfactory sanitary and garbage disposal facilities and the lack of hygiene in holiday camp areas in the Lake Macquarie and Port Stephens Shires were given attention.

There were 2,717 deaths from all causes among residents in the District equal to 9.00 per 1,000. Live births totalled 6,714 with 170 deaths of children under one year of age.

South Coast Health District

The population as at 30th June, 1958, was 283,230 and during the year there were 7,361 live births and 148 deaths of children under one year of age.

Deaths from all causes numbered 1,889.

There were total notifications of Infectious Diseases in respect of 245 cases (six deaths) for the District.

The incidence of Infectious Hepatitis, 167 cases (1 death), declined during the year compared with 400 cases (1 death) in 1957. 81 of these cases occurred in Sutherland Shire and 26 in the City of Greater Wollongong.

Septic tank installations exceeded the total of any previous year 79.25 per cent. of all applications being in respect of Sutherland Shire and Wollongong, an indication of intensive building operations in the area. The use of single treatment septic tanks in the area were, after introduction, preferred to septic closets.

Extensive work in relation to environmental sanitation was conducted during the year.

Mitchell Health District

Population at 30th June, 1958, was 137,850. During the year there were 3,210 live births and 71 deaths of children under one year of age. Deaths from all causes numbered 1,271.

There were 300 cases (8 deaths) of notifiable infectious diseases in 1958 in the District.

The suspected cause of an outbreak involving 35 people at Katoomba suffering from repeated vomiting and abdominal pains was drinking of polluted water from a mountain stream.

Extensive evidence of pollution of various public water supplies in the District during the year is referred to by the Medical Officer of Health in his report.

The whole problem of pollution of streams, etc., in the State is now under general investigation.

A further School for Subnormal Children was commenced in Orange with the active support of the Medical Officer of Health.

Richmond-Tweed Health District

Population at 30th June, 1958, numbered 123,920. There was a total of 2,956 live births and 923 deaths from all causes, including 46 among children under one year.

Infectious disease notifications numbered 178 cases (4 deaths) including 44 cases (no deaths) of Infectious Hepatitis and 87 cases (1 death) of Tuberculosis.

This Office was closed for practically the whole year due to staff recruitment difficulties, but was re-opened on 8th December, 1958.

Broken Hill and District

The population at 31st December, 1958 was estimated at 33,000. Deaths during the year numbered 238 with 1,060 births.

There were 31 cases of infectious notifiable diseases, including 20 cases of Tuberculosis (all forms) and 9 cases of Infectious Hepatitis.

Details of the wide range of the Medical Officer of Health's activities are shown in his report.

STATE HOSPITALS AND HOMES AND SANATORIA

There was a total daily average of 2,602 persons accommodated in the establishments at Randwick, Vacluse (Strickland Convalescent Hospital), Waterfall, Lidcombe, Liverpool, Newington and Berry (David Berry Hospital) maintained by the Department. The gross annual maintenance cost per patient was £562 6s. 5d. and the nett annual cost to the State £437 10s. 2d.

Changes during the year included the occupation of a new 60-bed tuberculosis ward at Lidcombe State Hospital and the conversion of Waterfall Sanatorium to a Hospital (Garrawarra) for long term and chronically ill patients. The Liverpool State Hospital and Home was closed and a new District Hospital (not controlled by this Department) opened to serve the local area.

The establishment of a Rehabilitation Unit at Lidcombe State Hospital and Home with a Consultant in physical medicine, 2 almoners, 2 Occupational Therapists and a Physiotherapist was a noteworthy step in the task of rehabilitation of patients physically and socially.

MISCELLANEOUS

The Radiological Advisory Council, constituted under the Radioactive Substances Act, 1957, was occupied in its advisory role to the Minister in the preparation of draft Regulations under the Act. The Director-General of Public Health is the Chairman of the Council. The Act gives powers for the licensing and control in respect of radioactive substances.

Similarly the Fluoridation of Public Water Supplies Advisory Committee, constituted under the Fluoridation of Public Water Supplies Act, 1957, was concerned with the preparation of Regulations under the Act in its capacity as the advisory body to the Board of Health. The Act permits a Water Supply Authority to add fluorine to a Public Water Supply with the approval of the Board of Health as a measure for the prevention of Dental Caries. The nominee of the Director-General of Public Health was Chairman of the Committee.

C. J. CUMMINS,
Director-General of Public Health.
(Appointed 8th November, 1959.)

VITAL STATISTICS OF NEW SOUTH WALES FOR THE YEAR 1958

Prepared by the Deputy Commonwealth Statistician, Mr. K. Davison

POPULATION

The estimated population at the end of 1958 was 3,725,686, of whom 1,865,917 were males and 1,859,769 females. During the year the increase in population by excess of births over deaths was 47,695 and by migration 17,494, making a total increase for the year of 65,189. The estimated mean population for the year 1958 was 3,693,282.

LIVE BIRTHS

The total number of live births was 80,045 equivalent to 21.67 per 1,000 of mean population, which rate is 0.4 per cent. below the average of the previous five years. Of this number 40,809 were males and 39,236 were females, the proportion being 104.01 males to 100 females.

Dividing the State into the Metropolis and the Remainder of the State, there were 39,540 births to mothers resident in the former and 40,505 in the latter, corresponding to rates of 19.59 and 24.19 respectively.

STILL-BIRTHS

The number of still-births registered was 1,208 (642 males and 566 females) which is 1.49 per cent. of all births, live and still, and equal to 0.33 per 1,000 of population. In the Metropolis there were 522 still-births, and in the Remainder of State, 686, representing 1.30 and 1.67 per cent. of all births, live and still, in the respective divisions.

DEATHS

The deaths during the year numbered 32,350 equivalent to a rate of 8.76 per 1,000 of population. This rate is 6.6 per cent. below the average of the previous five years.

The total includes 18,279 males and 14,071 females, equivalent to a rate of 9.87 and 7.64 respectively per 1,000 of mean population. The rate in the Metropolis was 9.48 per 1,000 and in the Remainder of the State, 7.89.

Of the 32,350 people who died during the year, 2,087 were under 5 years of age; 10,767 were aged 5 to 64 years and 19,496 were 65 years and over. The rates per 1,000 of population in the main groups under and over 5 years were 5.58 and 9.12.

INFANTILE MORTALITY

The number of children under 1 year of age who died was 1,704, equal to 21.29 per 1,000 live births. To this total the Metropolis contributed 792 or 20.03 per 1,000 live births and the Remainder of the State 912 or 22.52 per 1,000 live births. The rate for 1958 is 12 per cent. below the average of the previous five years. Of the deaths under 1 year of age, 1,055 or 62 per cent. occurred under 1 week; 1,225 or 72 per cent. under 1 month and 1,361 or 80 per cent. under three months.

CAUSES OF DEATHS, 1958

Classified in accordance with the Seventh Revision of the International List of Diseases and Causes of Death.

The principal causes of death in 1958 are shown in the statement on pages 15, 16 and 17 and reference is made below to the more prominent of these causes.

Infective and Parasitic Diseases (International Code Nos. 001-138)—Deaths in 1958 from infective and parasitic diseases numbered 385, representing a rate of 103 per million of mean population. Included in this section is tuberculosis (Code Nos. 001-019), which was responsible for 190 of the deaths, equal to a rate of 51 per million of mean population. The deaths from tuberculosis comprised 181 from tuberculosis of the respiratory system (Code Nos. 001-008) and 9 from other forms of tuberculosis (Code Nos. 010-019), the rates per million of mean population being 49 and 2 respectively. Of the persons dying from tuberculosis of the respiratory system, 143 were males and 38 females, the rates per million of each sex being 77 and 21 respectively.

Malignant Neoplasms (Code Nos. 140-199) and Neoplasms of Lymphatic and Haematopoietic Tissue (Code Nos. 200-205)—Deaths from the above causes numbered 4,871 equal to a rate of 1,319 per million of mean population. The deaths of males numbered 2,650 and of females 2,221, the

rates per million of each sex being 1,431 and 1,206 respectively. Of the total deaths, malignant neoplasms caused 4,497 and neoplasms of lymphatic and haematopoietic tissue 374, the mortality rate being 1,218 and 101 per million respectively.

Vascular Lesions Affecting Central Nervous System (Code Nos. 330-334)—In 1958, vascular lesions affecting the central nervous system caused 4,491 deaths, equal to a rate of 1,216 per million of mean population. This total comprised the following:—

International Code No.	Cause	Number of Deaths
330	Subarachnoid haemorrhage	173
331	Cerebral haemorrhage	1,963
332	Cerebral embolism and thrombosis	2,003
334	Other and ill-defined vascular lesions affecting central nervous system.	352
	Total	4,491

Of the total 1,998 were males and 2,493 females corresponding respectively to rates of 1,079 and 1,354 per million of mean population.

Diseases of the Circulatory System (Code Nos. 400-468)—Diseases of the circulatory system were the cause of 12,869 deaths, the rate being 3,484 per million of mean population. Of the total 7,453 were males and 5,416 females, corresponding respectively to rates of 4,025 and 2,941 per million of each sex.

Of the total deaths due to disease of the circulatory system, rheumatic fever and chronic rheumatic heart disease (Code Nos. 400-416) caused 254, equal to a rate of 69 per million.

Arteriosclerotic and degenerative heart disease (Code Nos. 420-422) accounted for 9,467 deaths, the mortality rate being 2,563 per million of mean population, deaths of males from this cause numbering 5,720 and females 3,747, the corresponding rates being 3,089 and 2,035 per million of each sex.

Other diseases of the heart (Code Nos. 430-434) caused 1,126 deaths, equal to a rate of 305 per million.

Hypertensive disease (Code Nos. 440-447) caused 1,160 deaths, the rate being 314 per million.

Deaths due to other diseases of the circulatory system numbered 862, equal to a rate of 233 per million.

Bronchitis (Code Nos. 500-502) and Pneumonia (Code Nos. 490-493)—In 1958, bronchitis was the cause of 365 deaths, comprised of 279 males and 86 females. Corresponding rate for males was 151, for females 47, and for persons 99 per million of mean population.

Of the 1,192 deaths from pneumonia, 713 were of males and 479 of females, and respective rates were 323, 385 and 260 per million of mean population.

Nephritis and Nephrosis (Code Nos. 590-594)—During the year there were 823 deaths due to diseases of the genito-urinary system (Code Nos. 590-637), of which 426 were caused by nephritis and nephrosis. The mortality rate for nephritis and nephrosis was 115 per million of mean population, for males 132 per million and for females 99 per million.

Mortality of Infants—The Table on page 17 shows the number of deaths of children under 1 year of age and mortality rate per 1,000 live births for the principal causes of deaths.

CAUSES OF DEATH, NEW SOUTH WALES, 1958

International Code No.	Cause of Death	Number of Deaths		
		Males	Females	Persons
001-138	Infective and Parasitic Diseases	282	103	385
001-008	Tuberculosis of respiratory system	143	38	181
010	Tuberculosis of meninges and central nervous system	3	..	3
011-019	Tuberculosis, other forms	3	3	6
020-029	Syphilis and its sequelae	36	7	43
040-041	Typhoid and paratyphoid fever	1	..	1
045-048	Dysentery	6	1	7
050	Scarlet fever .. .. .	..	..	..
052	Erysipelas .. .. .	..	1	1
055	Diphtheria .. .. .	..	1	1
056	Whooping cough	1	..	1
057	Meningococcal infections	16	4	20
061	Tetanus	12	3	15
080	Acute poliomyelitis .. .. .	..	..	..
081	Late effects of acute poliomyelitis	1	1	2
082	Acute infectious encephalitis	3	4	7
083	Late effects of acute infectious encephalitis .. .. .	..	1	1

CAUSES OF DEATH, NEW SOUTH WALES, 1958—*continued*

International Code No.	Cause of Death	Number of Deaths		
		Males	Females	Persons
085	Measles	4	2	6
092	Infectious hepatitis	7	11	18
Residual	Other infective and parasitic diseases	46	26	72
140-239	Neoplasms	2,690	2,259	4,949
140-199	Malignant neoplasms	2,445	2,052	4,497
200-205	Neoplasms of lymphatic and haematopoietic tissue	205	169	374
210-239	Other neoplasms	40	38	78
240-289	Allergic, Endocrine System, Metabolic and Nutritional Diseases	233	365	598
260	Diabetes mellitus	130	236	366
280-286	Avitaminoses and nutritional deficiency states	21	13	34
Residual	Other allergic, endocrine system, metabolic and nutritional diseases.	82	116	198
290-299	Diseases of the Blood and Blood Forming Organs	41	89	130
300-326	Mental, Psychoneurotic and Personality Disorders	83	48	131
330-398	Diseases of the Nervous System and Sense Organs	2,194	2,667	4,861
	Vascular lesions affecting central nervous system—			
331	Cerebral haemorrhage	871	1,092	1,963
332	Cerebral embolism and thrombosis	878	1,125	2,003
330, 333, 334	Other	249	276	525
340	Meningitis, except meningococcal and tuberculous	19	18	37
343	Encephalitis, myelitis and encephalomyelitis (except acute infectious).	8	6	14
341-342 } 344-398 }	Other disorders of the nervous system and sense organs	169	150	M 319
400-468	Diseases of the Circulatory System	7,453	5,416	12,869
400-416	Rheumatic fever and chronic rheumatic heart disease	135	119	254
420-422	Arteriosclerotic and degenerative heart disease	5,720	3,747	9,467
430-434	Other diseases of the heart	619	507	1,126
440-447	Hypertensive disease	523	637	1,160
450-456	Diseases of arteries	394	348	742
460-468	Diseases of veins and other diseases of circulatory system.. .. .	62	58	120
470-527	Diseases of the Respiratory System	1,277	689	1,966
480-483	Influenza	11	7	18
490-493	Pneumonia	713	479	1,192
500-502	Bronchitis	279	86	365
470-475 } 510-527 }	Other diseases of the respiratory system	274	117	391
530-587	Diseases of the Digestive System	732	500	1,232
540-545	Diseases of stomach and duodenum	237	81	318
550-553	Appendicitis	35	21	56
560-561	Hernia of the abdominal cavity	43	42	85
570	Intestinal obstruction without mention of hernia	79	77	156
571	Gastro-enteritis and colitis except ulcerative, age four weeks and over.	60	51	111
572	Chronic enteritis and ulcerative colitis	27	27	54
576-577	Peritonitis and peritoneal adhesions	8	6	14
581	Cirrhosis of liver	133	67	200
Residual	Other diseases of digestive system	110	128	238
590-637	Diseases of Genito-Urinary System	514	309	823
590-594	Nephritis and nephrosis	244	182	426
610-612	Diseases of the prostate	146	..	146
600-609 } 613-637 }	Other diseases of the genito-urinary system	124	127	251
640-689	Deliveries and Complications of Pregnancy, Child-birth and Puerperium.	..	52	52
640-649	Complications of pregnancy .. .. .	..	16	16
650-652	Abortion—			
6502, 6512, } 6522 }	Criminal .. .. .	..	3	3
Residual	Other .. .. .	..	7	7
670-678	Complications of delivery .. .. .	..	18	18
680-689	Complications of puerperium .. .. .	..	8	8
690-716	Diseases of the Skin and Cellular Tissue	24	26	50
720-749	Diseases of the Bones and Organs of Movement	46	52	98
750-759	Congenital Malformations	226	187	413
760-776	Certain Diseases of Early Infancy	578	398	976
760-761	Injury at birth	160	97	257
762	Post-natal asphyxia and atelectasis	69	48	117
776	Immaturity unqualified	231	169	400
763-775	Other diseases of early infancy	118	84	202
780-795	Symptoms, Senility and Ill-defined Conditions	230	281	511
794	Senility without mention of psychosis	168	248	416
780-793, 795	Other symptoms and ill-defined conditions	62	33	95
E800-E999	Accidents, Poisonings and Violence	1,676	630	2,306
E800-E962	Accidents	1,276	481	1,757
E970-E979 } E963 }	Suicide and self-inflicted injury	357	123	480
E964, E965, } E980-E999 }	Homicide and operations of war	43	26	69
001-E999	All Causes	18,279	14,071	32,350

CAUSES OF DEATH OF INFANTS UNDER ONE YEAR OF AGE, NEW SOUTH WALES, 1958

International Code Number	Cause of Death	Number of Deaths			Rate per 1,000 Live Births		
		Males	Females	Persons	Males	Females	Persons
001-019	Tuberculosis .. .. .	..	1	1	..	.03	.01
020-029	Syphilis and its sequelae .. .. .	..	1	1	..	.03	.01
057	Meningococcal infections	10	1	11	.25	.03	.14
080-081	Poliomyelitis .. .. .	..	..	..	..	..	..
082-083	Infectious encephalitis	1	1	2	.02	.03	.02
030-056, 058-074, 084-138 } ..	Other infective and parasitic diseases	12	7	19	.30	.18	.24
340	Meningitis, except meningococcal and tuberculous	7	7	14	.17	.18	.17
490-493	Pneumonia (age 4 weeks and over)	84	58	142	2.06	1.48	1.77
500-502	Bronchitis	16	4	20	.39	.10	.25
571	Gastro-enteritis and colitis, except ulcerative, age four weeks and over.	20	20	40	.49	.51	.50
750-759	Congenital malformations	160	135	295	3.92	3.44	3.69
7600-7610	Injury at birth, without mention of immaturity	80	44	124	1.96	1.12	1.55
7605-7615	Injury at birth, with immaturity	80	53	133	1.96	1.35	1.66
7620	Post-natal asphyxia and atelectasis, without mention of immaturity.	44	26	70	1.08	.66	.88
7625	Post-natal asphyxia and atelectasis with immaturity	25	22	47	.61	.56	.59
7630	Pneumonia of newborn, without mention of immaturity	26	27	53	.64	.69	.66
7635	Pneumonia of newborn, with immaturity	6	4	10	.15	.10	.13
7640	Diarrhoea of newborn, without mention of immaturity	1	..	1	.02	..	.01
7645	Diarrhoea of newborn, with immaturity .. .. .	..	..	..	..	..	..
7650, 7660, 7670, 7680, 7690-7694, 7700-7702, 7710, 7720, 7730. }	Other diseases of early infancy, without mention of immaturity.	49	25	74	1.20	.63	.93
7655, 7665, 7675, 7685, 7695-7699, 7705-7707, 7715, 7725, 7735. }	Other diseases of early infancy with immaturity	34	26	60	.83	.66	.75
774	Immaturity with mention of any other subsidiary condition.	1	2	3	.02	.05	.04
776	Immaturity unqualified	231	169	400	5.66	4.31	5.00
E800-E999	Accidents, poisonings and violence	37	21	58	.91	.53	.72
Residual	All other causes	73	53	126	1.79	1.35	1.57
001-E999	All Causes	997	707	1,704	24.43	18.02	21.29

SECTION I

A. Communicable Diseases, 1958

NOTIFIABLE INFECTIOUS DISEASES RECORDED IN NEW SOUTH WALES DURING THE YEAR ENDED 31ST DECEMBER, 1958—UNDER PUBLIC HEALTH ACT, 1902-1952

The Public Health Act, 1902-1952, provides that the Governor may by proclamation in the *Government Gazette*, declare that any disease named therein is an infectious disease.

	Notifiable from—	Cases and Deaths Notified					
		1956*		1957*		1958*	
		Cases	Deaths	Cases	Deaths	Cases	Deaths
Smallpox	20th December, 1881 ..	..	..	..	..	..	..
Leprosy	26th November, 1890 ..	..	..	..	..	3	1
Typhoid and Paratyphoid Fevers	1st January, 1898 ..	15	..	6	..	17	1
Scarlet Fever	1st January, 1898 ..	4	1	6	1	10	..
Diphtheria or Membranous Group	1st January, 1898 ..	574	1	485	..	703	..
Plague	1st January, 1898 ..	70	5	56	3	28	1
Acute Anterior Poliomyelitis	23rd January, 1900† ..	..	..	..	..	..	..
Meningococcal Infection	1st February, 1912† ..	240	16	58	4	23	..
Virus Encephalitis	11th October, 1915† ..	112	24	97	26	72	20
Cholera	1st April, 1926† ..	34	15	19	8	25	7
Typhus Fever	12th August, 1927 ..	..	..	..	..	..	..
Yellow Fever	12th August, 1927 ..	5	..	2	1	5	..
Puerperal Infection	12th August, 1927 ..	..	..	..	..	..	..
Brucellosis	16th August, 1929† ..	41	10	46	7	54	9
Tuberculosis (All Forms)	13th August, 1937† ..	12	1	16	..	23	1
Infantile Diarrhoea (diarrhoea of more than 48 hours duration in an infant under 2 years of age)	14th May, 1945§ ..	1,690	325	1,649	248	1,399	190
Rheumatic Fever	11th July, 1952 ..	270	41	212	40	193	38
Chorea (Rheumatic)	11th July, 1952 ..	156	11	106	14	105	15
Ancylostomiasis	11th July, 1952 ..	15	..	4	..	6	..
Dengue Fever	11th July, 1952 ..	33	..	71	..	20	1
Ornithosis	11th July, 1952 ..	..	..	..	..	..	..
Leptospirosis	11th July, 1952 ..	3	..	..	..	..	..
Ascariasis	11th July, 1952 ..	22	..	10	..	18	..
Infectious Hepatitis	22nd January, 1954 ..	54	7	44	1	33	..
Staphylococcal Mastitis	22nd January, 1954 ..	4,435	17	2,400	27	3,261	17
Staphylococcal Pneumonia	19th September, 1958 ..	..	Not Notifiable	..	..	6	..
Staphylococcal Diseases in infants under 4 weeks of age	19th September, 1958 ..	..	Not Notifiable	..	..	6	2
Totals	19th September, 1958 ..	..	Not Notifiable	..	..	5	..
Population as at 31st December .. .. .	.. .. .	7,785	474	5,287	380	6,015	303
		3,588,344		3,660,497		3,725,686	

* Classified according to the Seventh (1958) Revision of the International List.
† Definition reproclaimed 11th July, 1952.
‡ Definition reproclaimed 14th August, 1931, and 11th July, 1952. Cases and deaths shown are those notified during the year.
§ Pulmonary Tuberculosis has been notifiable as follows:—(a) From 1904, City of Sydney only; (b) From 1915, Metropolitan and Hunter River Districts; (c) From 1916, Blue Mountains Districts added; (d) From March, 1929, notification was extended to cover the whole State. On 14th May, 1945, extra-pulmonary tuberculosis was made notifiable.
Note:—Diseases notifiable prior to 1902 were notifiable under the following Acts:—Infectious Diseases (Smallpox) Supervision Act, 1881; Leprosy Act, 1890; Public Health Act, 1896

General

A total of 6,015 cases of infectious disease was notified under the Public Health Act during 1958, or 728 more cases than in 1957. The number of cases notified within the six Health Districts (including Broken Hill) and the remainder of the State; the deaths due to these diseases and the age and sex of the patients are shown in the appended Table I on pages 19 to 24 and a summary in Table II on page 25.

Pulmonary Tuberculosis

Notified cases in 1958 amounted to 1,399, a decrease of 250 on the notifications received in 1957. There were 190 deaths or a decrease of 58 compared with deaths in 1957. The report of the Director of the Division is on page 66.

Venereal Disease

Cases of venereal disease notified under the Venereal Diseases Act, 1918, decreased by 76 compared with 1957.
The report of the Director of this Division is on page 26.

Acute Anterior Poliomyelitis

23 cases were notified during 1958, a reduction of 35 compared with 1957 (58 cases). See report of the Director, Poliomyelitis Vaccination Campaign, page 33.

TABLE I—continued—NOTIFIABLE INFECTIOUS DISEASES—CASES AND DEATHS BY SEX AND AGE, EACH HEALTH DISTRICT, 1958—continued

Age Group	Acute Anterior Poliomyelitis				Rheumatic Fever				Scarlet Fever				Tuberculosis				Typhoid Fever				Typhus Fever				
	Cases		Deaths		Cases		Deaths		Cases		Deaths		Cases		Deaths		Cases		Deaths		Cases		Deaths		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	
MITCHELL HEALTH DISTRICT																									
All Ages ..	1	..	1	..	7	15	22	2	3	5	32	30	62	..	..	27	18	45	4	2	6	1	..	..	..
Under 1 Year	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1-4 Years	1	..	1	..	6	8	14	2	1	3	11	6	17	..	..	..	1	..	..	..	..	..	..	..	..
5-14 Years	..	..	..	..	1	1	2	..	..	..	20	20	40	..	..	..	..	..	..	..	..	..	..	..	..
15-24 Years	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
25-34 Years	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
35-44 Years	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
45-54 Years	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
55-64 Years	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
65 Years and Over	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Not Stated	..	..	..	..	..	..	..	..	..	..	1	1	2	..	..	3	3	6	..	..	..	..	..	..	..
BROKEN HILL DISTRICT																									
All Ages ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	15	5	20	5	..	5	..	..	..	..
Under 1 Year	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1-4 Years	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
5-14 Years	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
15-24 Years	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
25-34 Years	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
35-44 Years	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
45-54 Years	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
55-64 Years	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
65 Years and Over	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Not Stated	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
REMAINDER OF STATE (Including Armed Forces and Imported Cases)																									
All Ages ..	7	6	13	..	18	13	31	3	1	4	78	110	188	..	..	184	95	279	22	8	30	1	1	1	..
Under 1 Year	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1-4 Years	3	3	6	..	2	10	2	..	..	..	26	22	48	..	..	..	..	..	..	..	..	..	..	..	..
5-14 Years	3	1*	4	..	5	15	11	..	1	1	46	73	119	..	..	..	..	..	..	..	..	..	..	..	..
15-24 Years	1	..	1	..	9	2	11	1	..	1	1	6	7	..	..	7	12	19	..	..	..	..	..	..	..
25-34 Years	..	..	1	..	1	1	2	1	..	1	2	3	5	..	..	19	26	45	2	..	..	..	..	..	..
35-44 Years	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	27	12	39	4	1	5	..	..	..	..
45-54 Years	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	36	8	44	3	1	4	1*	..	..	..
55-64 Years	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	42	12	54	11	6	17	..	..	..	..
65 Years and Over	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Not Stated	..	..	..	..	..	..	..	..	..	..	2	1	3	..	..	..	..	..	..	..	..	..	..	..	..
* Includes 1 Imported Case.																									
WHOLE STATE																									
All Ages ..	14	9	23	..	50	55	105	8	7	15	293	410	703	..	..	960	439	1,399	149	41	190	10	7	17	1
Under 1 Year	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1-4 Years	3	3	6	..	6	3	9	..	1	1	110	92	202	..	..	12	14	26	..	1	1	..	..	..	..
5-14 Years	7	1	8	..	25	31	56	2	3	5	164	276	440	..	..	16	14	30	1	1	1	4	3	7	1
15-24 Years	1	1	2	..	15	12	27	3	1	3	7	19	26	..	..	33	58	91	1	1	2	1	1	2	1
25-34 Years	1	1	2	..	2	3	5	2	1	3	3	8	11	..	..	115	99	214	11	3	14	1	1	2	1
35-44 Years	2	2	4	..	..	3	3	..	..	..	..	5	5	..	..	117	81	252	11	5	16	..	..	..	..
45-54 Years	..	..	..	..	..	2	3	..	..	..	..	..	..	..	..	200	74	274	32	8	40	..	..	..	..
55-64 Years	..	..	..	..	..	..	3	..	..	..	..	..	..	..	..	210	41	251	40	1	1	1	1	2	..
65 Years and Over	..	..	..	..	..	..	1	..	1	1	..	..	..	..	..	201	50	251	53	14	67	..	..	..	..
Not Stated	..	..	..	..	..	..	..	..	..	..	..	..	10	..	..	1	2	3	..	..	..	..	..	..	..

TABLE II—SUMMARY, 1958

District	Estimated Population 30th June, 1958	Ancylostomiasis		Ascariasis		Brucellosis		Chorea (Rheumatic)		Diphtheria		Infantile Diarrhoea		Virus Encephalitis		Infectious Hepatitis		Leptospirosis		Meningococcal Infection	
		Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Metropolitan Heath District ..	1,887,800	2	..	3	..	6	1	6	..	7	..	82	17	10	3	1,289	7	..	..	36	8
Hunter River Health District ..	302,010	..	..	..	..	..	..	..	..	13	..	11	2	1	1	166	1	..	..	5	3
South Coast Health District ..	283,230	..	..	2	..	2	..	..	..	1	..	6	2	1	..	167	1	..	..	6	1
Richmond-Tweed Health District ..	123,920	3	..	4	..	..	..	..	..	..	..	2	..	1	..	44	..	17	..	1	..
Mitchell Health District ..	137,850	..	..	..	..	1	..	..	..	1	..	12	1	1	..	195	..	..	..	2	1
Broken Hill District ..	33,720	..	..	..	..	..	..	..	..	..	..	1	1	..	..	9	..	..	..	1	..
Remainder of State ..	920,645	15	1	24	..	14	..	..	..	6	1	79	15	11	3	1,379	8	1	..	21	7
Residence Outside State ..	....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6	..	..	..	..	..
Armed Forces ..	....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6	..	..	..	..	..
Total—New South Wales ..	3,689,175	20	1	33	..	23	1	6	..	28	1	193	38	25	7	3,261	17	18	..	72	20

District	Estimated Population 30th June, 1958	Paratyphoid Fever		Puerperal Fever		Acute Anterior Polyomyelitis		Rheumatic Fever		Scarlet Fever		Tuberculosis		Typhoid Fever		Typhus Fever		Leprosy	
		Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Metropolitan Heath District..	1,887,800	7	..	13	6	4	..	38	2	305	..	839	117	11	..	..	..	3	1
Hunter River Health District ..	302,010	..	..	6	1	2	..	1	..	95	..	66	24	3	..	1	..	..	..
South Coast Health District ..	283,230	1	..	4	..	3	..	8	2	44	..	63	7	..	..	..	..	..	..
Richmond-Tweed Health District ..	123,920	..	..	2	1	..	..	5	2	9	..	87	1	..	..	3	..	..	..
Mitchell Health District ..	137,850	..	..	1	..	1	..	22	5	62	..	45	6	1	1	..	..	..	..
Broken Hill District ..	33,720	..	..	..	..	..	..	..	..	..	..	20	5	..	..	..	..	..	..
Remainder of State ..	920,645	2	..	28	1	12	..	31	4	188	..	279	30	1	..	..	..	..	..
Residence Outside State ..	....	..	..	..	..	1	..	..	..	..	..	..	..	1	..	1	..	..	..
Armed Forces ..	....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total—New South Wales ..	3,689,175	10	..	54	9	23	..	105	15	703	..	1,399	190	17	1	5	..	3	1

PUBLIC HEALTH ACT, 1902-1952—VENEREAL DISEASES ACT, 1918

Report of the Director (H. C. Johnston, M.B., B.Sc., D.P.H.), on the Activities of the Division of Epidemiology, for the year ending 31st December, 1958.

STAFF CHANGES

Mr. L. G. Hudson, M.A., B.Sc., resigned on 15th April, 1958. Dr. E. H. B. Docker, M.C., M.B., retired on 26th September, 1958, and in his place Dr. E. K. Newman, M.D.(Brno) D.T.M. & H.(London) was appointed as a Medical Officer to the Venereal Diseases Clinic.

DISEASES NOTIFIABLE UNDER THE PUBLIC HEALTH ACT, 1902-1952

General activities include the recording, compilation and follow up of notifications received under the Public Health Act, preparation of routine and special reports on the notifiable infectious diseases, maintenance of graphs and maps of disease incidence; exchange of epidemiological information within the States and overseas countries. It has not yet been possible, because of the lack of staff, to carry out epidemiological investigations in the field. Mr. Hudson's departure overseas was a loss to the Division. He had been largely responsible for setting up this Section and his specialized experience and untiring energy developed it into a state of high efficiency.

VENEREAL DISEASES

Statistics concerned with the administration of the Venereal Diseases Act, 1918, are appended to this introduction.

The reported incidence of gonorrhoea fell 3.9 per cent. for the year compared with 1957. Previously there had been a rise in the number of notifications annually for the three years 1955 to 1957.

The incidence of syphilis again declined to the extent of 2.9 per cent. However the number of cases of syphilis diagnosed in the Divisional Clinic for males rose by 27.3 per cent. to 117. Of these 87 (74.3 per cent.) were suffering from early infectious syphilis.

The Divisional clinic incidence of patients suffering from non-gonococcal urethritis rose by 4.7 per cent., 1,258 cases this year compared with 1,209 in 1957.

Allergic skin reactions to penicillin occurred in 10 (0.93 per cent.) of 1,076 patients with gonorrhoea who were treated in the Divisional clinic with a single injection of a repository penicillin injection. Three of these reactions occurred within 24 hours after an injection of 600,000 units P.A.M., while 7 occurred 8 to 12 days after an injection of 1.2 mega units of "Bicillin All-purpose". The majority of syphilis patients are still being treated with P.A.M. and six (5.4 per cent.) of the syphilis cases treated with penicillin developed allergic reactions usually about 10 days after commencement of the treatment course. No anaphylactic reactions occurred.

The Director, nominated by the Commonwealth Government, was a participant in the Seminar on V.D. Control arranged by the World Health Organization (Western Pacific Region) in Tokyo in March, 1958.

VENEREAL DISEASES ACT, 1918—REPORT ON NOTIFICATIONS RECEIVED DURING THE YEAR ENDED 31ST DECEMBER, 1958

Two thousand four hundred and two notifications of venereal disease were received during the year 1958, which total was a decrease of 76 as compared with the previous year.

Of the total notifications, 92.8 per cent. came from the metropolitan area.

Notifications from private practitioners amounted to 20.8 per cent. of the total, compared with 24.6 per cent. in 1957 and 18.1 per cent. in 1956.

SYPHILIS

There were 234 notifications of syphilis (177 males and 57 females), a figure 7 below that for previous year. The sex ratio was 3.1 males to 1 female.

Of the patients notified 8.5 per cent. were being treated privately, as compared with 20.7 per cent. in 1957 and 22.0 per cent. in 1956.

Syphilis contributed 9.7 per cent. of the total notifications, as compared with 9.7 per cent. in 1957 and 12.5 per cent. in 1956.

Of the syphilis infections notified, 166 (70.9 per cent.) were early infections as compared with 134 (55.6 per cent.) in 1957 and 135 (56.2 per cent.) in 1956.

The notifications of syphilis gave an incidence of 6.34 per 100,000 of mean population, as compared with 6.65 in 1957 and 6.88 in 1956.

GONORRHOEA

Of the total notifications received during the year, 2,024 were for gonorrhoea (1,848 males and 176 females), which was a figure 84 below that for the previous year. The sex ratio was 10.5 males to 1 female.

The notifications received from private practitioners amounted to 23.0 per cent. of the total gonorrhoea, as compared with 26.3 per cent. in 1957 and 18.6 per cent. in 1956.

The percentage of gonorrhoea in the total notifications of venereal disease received during 1958 was 84.3 per cent. as compared with 85.1 per cent. in 1957 and 82.2 per cent. in 1956.

The notifications of gonorrhoea gave an incidence of 54.09 per 100,000 of mean population, as compared with 58.18 in 1957 and 45.39 in 1956.

OTHER FORMS OF VENEREAL DISEASE

	1956	1957	1958
Soft Chancre (Chancroid)	2	7	2
Gonoccal. Ophthalmia	Nil	Nil	Nil
Venereal Warts	101	120	129
Gleet	Nil	2	13
Lymphogranuloma Ven.	Nil	Nil	Nil

During 1958 the names and addresses of 916 defaulters (878 males and 38 females) were notified. This figure was 30 below that for the previous year.

Because of inaccurate information given by patients, or because of failure to notify change of address, 217 (23.7 per cent.) "follow up" letters were returned unclaimed.

The following Table shows the percentage of defaulters who remained permanent defaulters:—

Year	Total Defaulters Notified	Resumed Treatment, Died or Left State, or Not Finalised	Remained in Default	Percentage Remaining in Default
1955	470	281	189	40.2
1956	857	538	319	37.2
1957	946	598	348	36.8
1958	916	623	293	32.0

PROSECUTIONS

During the year action, by Summons before a Magistrate, was taken against 453 persons for breach of Section 5 of the Act (failure to continue under treatment). Of ten males who were arrested, 9 completed treatment after being placed on verbal recognisance and 1 forfeited the £30 bail for non-compliance of the recognisance.

CLINICS

Attendances at clinics for males totalled 45,285 (96.5 per cent. of this total being attendances at the clinic in the Division of Epidemiology, Sydney), as compared with 47,479 in 1957 and 44,360 in 1956.

At the clinics for females the attendances were 2,183 (76.9 per cent. of this total being at the Special Clinic at the Rachel Forster Hospital for Women and Children, Sydney), as compared with 2,043 in 1957 and 2,683 in 1956.

The sex ratio of attendances at clinics was 20.8 males to 1 female.

METROPOLITAN DISTRICT

Ten clinic centres are available. Of these, one centre provides for males only and one for females only.

Prophylactic facilities for males are available continuously at the clinic in the Division of Epidemiology, Albert Street, Sydney and 22,496 prophylactic treatments were given during the year 1958.

NEWCASTLE DISTRICT

The Clinics at the Royal Newcastle Hospital provided 57.7 per cent. of the notifications of venereal diseases from the Newcastle District. Prophylactic facilities are available at the Hospital.

DISTRICT GENERAL HOSPITALS

Treatment is available at Country General Hospitals.

BED ACCOMMODATION

Beds are available in the metropolitan area as required. There is very little demand, or need, for bed accommodation.

PATHOLOGICAL EXAMINATIONS

During 1958 the Pathological Laboratories carried out 72,928 serologic tests for venereal disease.

Smears examined for the presence, or otherwise, of gonococci totalled 3,213. In addition, 2,701 smears were examined in the Division of Epidemiology.

Three hundred and seven examinations were made for *treponema pallidum* (299 in the Division of Epidemiology) as compared with 296 for the previous year.

The following Tables are appended:—

Table I — Notifications received during 1958 arranged in order of district from which notification came.

Table II — Return of cases of venereal disease notified during 1958 showing forms of disease and age and sex of patients.

Table IIA — Syphilis: Age-Sex grouping by stage of disease.

Table III — Summary of attendances at the various clinics during 1958.

TABLE I—NOTIFICATIONS RECEIVED DURING 1956 TO 1958, ARRANGED IN ORDER OF DISTRICTS

	Metropolitan Area			Newcastle District			Remainder of State		
	1956	1957	1958	1956	1957	1958	1956	1957	1958
Gonorrhoea	{ M.1,232 } F. 126 } 1,358	{ M.1,737 } F. 183 } 1,920	{ M.1,713 } F. 163 } 1,876	{ M. 166 } F. 5 } 171	{ M. 125 } F. 4 } 129	{ M. 100 } F. 10 } 110	{ M. 53 } F. 2 } 55	{ M. 50 } F. 9 } 59	{ M. 35 } F. 3 } 38
Syphilis	{ M. 143 } F. 65 } 208	{ M. 151 } F. 54 } 205	{ M. 167 } F. 55 } 222	{ M. 14 } F. 4 } 18	{ M. 11 } F. 2 } 13	{ M. 10 } F. 2 } 12	{ M. 7 } F. 7 } 14	{ M. 15 } F. 8 } 23	{ M. .. } F. .. } ..
Soft Chancere	{ M. 2 } F. .. } 2	{ M. 7 } F. .. } 7	{ M. 2 } F. .. } 2	.....	.....	.....	.....	.....	.....
Gleet .. ..	.....	{ M. 1 } F. .. } 1	.....	.....	{ M. 1 } F. .. } 1	{ M. 13 } F. .. } 13	.....	.....	.....
Ven. Warts	{ M. 101 } F. .. } 101	{ M. 119 } F. 1 } 120	{ M. 129 } F. .. } 129	.....	.....	.....	.....	.....	.....
Gon. Ophthalmia .. ..	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lymphogram. Ven. .. ..	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals	{ M.1,478 } F. 191 } 1,669	{ M.2,015 } F. 238 } 2,253	{ M.2,011 } F. 218 } 2,229	{ M. 180 } F. 9 } 189	{ M. 137 } F. 6 } 143	{ M. 123 } F. 12 } 135	{ M. 60 } F. 9 } 69	{ M. 65 } F. 17 } 82	{ M. 35 } F. 3 } 38

TABLE II—RETURN OF CASES OF VENEREAL DISEASE NOTIFIED DURING 1958 SHOWING FORMS OF DISEASE AND AGE AND SEX OF PATIENT

Diseases	0-14		15-24		25-29		30-34		35-39		40-49		50-59		60-69		70 and over		Age unknown		Totals		Grand Total		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.			
Gonorrhoea	1	1	781	31	463	55	238	35	182	22	129	19	44	9	9	3	1	1	..	..	1,848	176	2,024
Syphilis	1	1	42	24	35	7	26	3	23	7	27	6	15	5	7	2	1	2	..	..	177	57	234
Soft Chancre	1	..	..	..	..	..	1	..	..	..	..	..	..	..	2	..	2
Gleet	3	..	3	..	3	..	2	..	2	..	..	..	..	..	..	..	..	..	13	..	13
Ven. Warts	72	..	36	..	7	..	4	..	5	..	4	..	1	..	..	..	..	..	129	..	129
Gon. Ophthalmia
Lymphogram Ven.
Totals	2	2	898	55	537	62	275	38	211	29	163	25	64	14	17	5	2	3	..	..	2,169	233	2,402

TABLE IIA—SYPHILIS—AGE SEX GROUPING BY STAGE OF DISEASE

Classification of Diseases	0-14		15-24		25-29		30-34		35-39		40-49		50-59		60-90		70 +		Unknown		Totals		Grand Total
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Primary	26	5	22	..	15	..	14	..	11	1	3	..	1	..	..	..	..	..	92	6	98
Secondary..	5	3	3	2	6	..	..	2	2	1	1	..	..	..	..	..	..	..	17	8	25
Latent 1st year	7	10	6	4	3	1	4	..	3	3	1	1	..	..	..	..	..	..	24	19	43
Cardio-vascular	1	..	..	..	..	..	..	..	1	..	1
C.N.S.	1	1	2	..	3	..	1	..	1	..	..	..	7	2	9
All other late and latent	2	4	3	1	..	2	1	3	5	1	4	4	3	2	1	1	..	..	19	18	37
Treated	2	2	1	..	2	..	3	1	4	..	2	..	2	..	..	..	..	..	16	3	19
Congenital under 1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Congenital over 1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
Relapse
Totals ..	1	1	42	24	35	7	26	3	23	7	27	6	15	5	7	2	1	2	..	..	177	57	234

TABLE III — TABLE SHOWING ANNUAL ATTENDANCE RETURNS AT PUBLIC CLINICS FOR TREATMENT OF VENEREAL DISEASE — 1956, 1957 AND 1958, INCLUSIVE

Attendances						New Cases						
Year	Male	Female	Total	Gonorrhoea			Syphilis					
				Male	Female	Total	Male	Female	Total			
HEALTH DEPARTMENT CLINIC												
1956	42,775	42,775	939	..	939	89	..	89
1957	45,749	45,749	1,124	..	1,124	85	..	85
1958	43,700	43,700	1,083	..	1,083	117	..	117
ROYAL PRINCE ALFRED HOSPITAL												
1956	174	66	240	22	2	24	5	18	23	
1957	216	35	251	25	3	28	7	5	12	
1958	479	71	550	32	3	35	7	..	7	
SYDNEY HOSPITAL												
1956	562	164	726	72	1	73	11	2	13	
1957	563	140	703	75	4	79	13	6	19	
1958	342	32	374	93	7	100	8	2	10	
ROYAL ALEXANDRA HOSPITAL FOR CHILDREN												
1956	1	5	6	..	..	..	..	..	..
1957	21	4	25	..	..	..	1	..	1	
1958	2	6	8	..	..	..	..	..	..
ROYAL SOUTH SYDNEY HOSPITAL												
1956	2	2	4	2	2	4	..	2	2	
1957	12	1	13	2	1	3	..	..	..
1958	8	..	8	3	..	3	..	..	..
ROYAL NORTH SHORE HOSPITAL												
1956	57	104	161	3	..	3	2	2	4	
1957	84	43	127	3	..	3	2	2	4	
1958	20	18	38	..	..	..	2	..	2	
ROYAL NEWCASTLE HOSPITAL												
1956	695	194	889	66	1	67	10	4	14	
1957	756	216	972	77	3	80	5	4	9	
1958	706	377	1,083	65	8	73	4	1	5	
RACHEL FORSTER HOSPITAL FOR WOMEN												
1956	2,138	2,138	..	77	77	..	20	20	
1957	1,599	1,599	..	84	84	..	12	12	
1958	1,678	1,678	..	86	86	..	22	22	
PARRAMATTA DISTRICT HOSPITAL												
1956	84	2	86	1	..	1	1	..	1	
1957	70	..	70	..	..	..	..	..	..
1958	21	..	21	1	..	1	1	..	1	
ST. GEORGE HOSPITAL, KOGARAH												
1956	8	8	16	..	..	..	..	..	..
1957	7	4	11	2	..	2	..	..	..
1958	5	1	6	2	..	2	..	..	..
BALMAIN and DISTRICT HOSPITAL												
1956	2	..	2	..	..	..	1	..	1	
1957	1	1	2	..	..	..	..	..	..
1958	2	..	2	..	..	..	..	..	..
TOTALS												
1956	44,360	2,683	47,043	1,105	83	1,188	119	48	167	
1957	47,479	2,043	49,522	1,308	95	1,403	113	29	142	
1958	45,285	2,183	47,468	1,279	104	1,383	139	25	164	

POLIOMYELITIS VACCINATION CAMPAIGN, N.S.W.**Annual Report, 1958**

Director: E. S. A. Meyers, M.B., B.S., D.P.H.

Staff: Clerks, 2; Shorthand Typist, 1; Office Assistant, 1; Packers 2

The Poliomyelitis Vaccination Campaign, which was commenced in New South Wales in July, 1956, continued throughout 1958. During this period, 1,252,975 persons from the age of 3 months to 40 years received their first dose of the vaccine, 1,204,072 received their second dose, and 872,803 received their third dose. During the period, 3,484,062 doses of vaccine were issued to councils and other bodies.

In July, 1958, the great majority of children having been vaccinated, adults from 15 to 40 years of age were given the opportunity of receiving protection. Every effort was made to stimulate the interest of this group: retail stores and statutory bodies, etc., were offered the vaccine and in many instances the Department supplied a team, comprising a Medical Officer and Nurses, to undertake the vaccination.

The Campaign has continued in a satisfactory manner and local authorities have continued to co-operate whole-heartedly with the Department. The Red Cross Blood Transfusion Service, which had undertaken the responsibility of preparing sterilised equipment for use during the campaign, continued the service which has proved a very successful one.

On the receipt of information of the notification of a case of poliomyelitis, this office collected particulars of the case and forwarded it to the Surveillance Committee set up by the Commonwealth Department of Health in Melbourne.

During 1958, 23 cases of poliomyelitis were notified to the Board of Health. Of these, 11 were considered by the Surveillance Committee to be cases of poliomyelitis. No information was obtainable with regard to one case, either about the vaccination status or clinical details; two cases, one a child of 2 and the other an adult of 28, had received one injection of the vaccine prior to the onset of the disease. There were no other cases of poliomyelitis following vaccination.

Whilst there has been a suitable response from amongst school children, there unfortunately has been apathy exhibited by the teenage and young adult group and, for reasons unknown, delay on the part of parents of young babies to arrange for vaccination.

It is in the pre-school group and in the teenage and young adult group that the future cases of poliomyelitis are likely to occur.

DEPARTMENT OF PUBLIC HEALTH, N.S.W.— POLIOMYELITIS VACCINATION CAMPAIGN

TABLE I — PROGRESS TOTALS OF PERSONS GIVEN FIRST INJECTION OF POLIOMYELITIS VACCINE BY YEAR OF BIRTH SINCE COMMENCEMENT OF CAMPAIGN IN NEW SOUTH WALES

Month	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950
1956—July-December	11,383	22,259	26,492	29,814	31,040	35,176	34,381	33,704	33,599	33,868
1957—January-December	5,450	14,035	19,081	20,991	23,193	26,677	28,760	28,784	29,352	30,548
1958—January	9	4	3	7	11	7	6	11	9
February	98	95	97	77	125	104	128	118	142
March	131	200	228	235	276	255	290	294	329
April	46	50	77	81	81	82	130	101	135
May	95	82	119	118	133	156	149	150	173
June	65	109	155	111	152	148	151	155	148
July	75	85	101	101	154	175	152	165	198
August	39	40	71	69	102	95	92	106	108
September	90	58	73	66	70	82	76	71	96
October	38	30	85	65	79	73	87	98	120
November	32	36	72	54	90	71	77	87	128
December	16	15	24	18	30	25	25	15	26
Totals	16,833	37,028	46,377	51,910	55,235	63,156	64,414	63,851	64,322	66,028

TABLE I — PROGRESS TOTALS OF PERSONS GIVEN FIRST INJECTION OF POLIOMYELITIS VACCINE BY YEAR OF BIRTH SINCE COMMENCEMENT OF CAMPAIGN IN NEW SOUTH WALES — continued

Month	1951	1952	1953	1954	1955	1956	1957	1958	Others	Total
1956—July-December	32,162	31,478	30,690	28,825	28,415	12,860	..	..	8,183	464,329
1957—January-December	29,168	28,235	27,825	28,211	28,081	38,458	12,292	..	18,858	437,999
1958—January	16	39	51	51	47	127	492	..	377	1,267
February	193	309	354	394	461	1,066	5,077	..	1,554	10,392
March	450	610	711	825	848	2,336	9,093	27	2,945	20,083
April	188	292	277	384	371	815	3,657	222	1,815	8,804
May	275	435	440	516	611	1,068	5,370	794	2,966	13,650
June	194	251	308	325	372	756	3,358	1,140	2,655	10,553
July	237	408	460	491	649	1,149	4,609	2,634	31,586	43,429
August	157	230	276	337	329	708	2,894	2,633	61,540	69,826
September	129	255	205	216	292	538	2,103	2,562	53,753	60,735
October	131	204	279	288	343	680	2,182	3,978	48,707	57,467
November	111	149	179	229	270	460	1,383	2,902	34,536	40,866
December	47	59	66	82	322	160	522	1,298	10,825	13,575
Totals	63,458	62,954	62,121	61,174	61,411	61,181	53,032	18,190	280,300	1,252,975

TABLE II — PROGRESS TOTALS OF PERSONS GIVEN SECOND INJECTION OF POLIOMYELITIS VACCINE BY YEAR OF BIRTH SINCE COMMENCEMENT OF CAMPAIGN IN NEW SOUTH WALES

Month	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950
1956—July-December	9,721	18,989	22,500	25,445	26,171	29,003	27,957	27,629	27,338	26,748
1957—January-December	6,033	15,938	21,890	24,462	27,256	32,173	34,526	34,327	35,250	36,499
1958—January	38	41	32	39	48	58	37	42	49
February	54	62	70	53	60	65	53	63	78
March	116	134	133	116	165	149	164	159	187
April	172	197	231	232	267	249	283	283	341
May	92	82	104	140	144	153	182	189	204
June	70	55	80	111	91	105	108	96	136
July	71	104	100	110	147	155	119	160	195
August	72	76	86	87	150	152	128	156	165
September	50	40	79	82	107	103	95	100	103
October	92	75	62	76	83	87	91	66	108
November	42	36	82	66	93	90	95	99	114
December	34	41	60	56	73	76	77	84	86
Totals	15,754	35,830	45,333	51,026	54,595	62,604	63,925	63,388	64,085	65,013

TABLE II — PROGRESS TOTALS OF PERSONS GIVEN SECOND INJECTION OF POLIOMYELITIS VACCINE BY YEAR OF BIRTH SINCE COMMENCEMENT OF CAMPAIGN IN NEW SOUTH WALES — continued

Month	1951	1952	1953	1954	1955	1956	1957	1958	Others	Total
1956—July-December	24,339	22,084	21,084	19,495	19,396	7,354	..	..	5,713	360,966
1957—January-December	36,150	36,238	36,384	36,442	35,869	42,081	10,581	..	16,562	518,661
1958—January	71	103	135	119	129	346	532	..	412	2,231
February	96	135	160	197	178	500	838	..	724	3,386
March	224	357	373	400	450	1,162	4,409	..	1,338	10,036
April	428	624	694	845	891	2,265	9,061	83	2,013	19,159
May	261	362	364	415	451	949	4,302	291	1,693	10,378
June	205	297	322	390	463	807	3,883	558	2,255	10,032
July	215	331	404	436	461	1,009	4,409	1,421	3,771	13,618
August	194	361	389	434	600	929	3,706	1,936	30,090	39,711
September	162	250	281	311	329	700	3,033	2,664	55,954	64,443
October	139	219	222	245	292	577	2,319	2,461	54,143	61,357
November	145	236	277	298	359	645	2,234	3,774	43,689	52,374
December	107	147	170	211	242	437	1,343	2,605	31,871	37,720
Totals	62,736	61,744	61,259	60,238	60,110	59,761	50,650	15,793	250,228	1,204,072

TABLE III — PROGRESS TOTALS OF PERSONS GIVEN THIRD INJECTION OF POLIOMYELITIS VACCINE BY YEAR OF BIRTH SINCE COMMENCEMENT OF CAMPAIGN IN NEW SOUTH WALES

	1941	1942	1943	1944	1945	1946	1947	1948
No. of Children resident in N.S.W. according to year of birth*	52,500	54,100	57,100	61,700	63,200	69,900	73,100	69,700
Month								
1956—July-December	6,801	17,321	24,725	27,164	30,598	35,615	34,735	33,319
1957—January-December	714	1,076	968	1,322	1,341	1,557	1,664	1,725
1958—January	2,684	5,026	6,931	8,122	8,042	9,782	10,851	11,385
February	806	1,789	2,649	3,438	3,764	4,186	4,479	4,622
March	188	530	443	502	512	508	472	507
April	1,514	3,576	4,196	5,103	5,006	5,159	5,406	5,416
May	531	931	1,182	1,319	1,250	1,334	1,472	1,445
June	272	565	470	532	521	521	596	606
July	174	320	325	430	355	360	350	387
August	100	246	217	207	210	213	212	184
September	75	170	157	240	208	274	192	223
October	58	126	171	172	167	204	210	211
November	27	69	88	103	108	114	129	169
December								
Totals	13,944	31,745	42,522	48,654	52,082	59,827	60,768	60,199

TABLE III — PROGRESS TOTALS OF PERSONS GIVEN THIRD INJECTION OF POLIOMYELITIS VACCINE BY YEAR OF BIRTH SINCE COMMENCEMENT OF CAMPAIGN IN NEW SOUTH WALES — continued

	1949	1950	1951	1952	1953	1954	1955	1956
No. of Children resident in N.S.W. according to year of birth*	70,400	71,600	72,000	73,100	73,300	72,900	72,900	73,900
Month								
1956—July-December	33,088	32,729	30,478	28,215	26,267	24,608	23,782	12,264
1957—January-December	1,823	2,034	2,275	3,266	3,842	3,826	3,869	3,191
1958—January	11,906	12,200	11,325	10,991	11,029	10,927	10,814	10,129
February	4,645	4,826	4,948	4,930	4,869	4,723	4,684	5,261
March	521	501	525	562	584	657	732	794
April	5,672	5,658	5,611	5,713	5,632	5,604	5,661	7,669
May	1,494	1,587	1,553	1,434	1,335	1,456	1,388	2,108
June	622	668	705	818	839	856	1,012	1,784
July	436	410	607	758	776	819	890	2,465
August	229	247	252	362	433	424	509	1,298
September	265	297	357	460	488	533	571	1,479
October	221	229	315	437	500	568	570	1,603
November	149	160	224	314	351	422	474	1,083
December								
Totals	61,071	61,546	59,175	58,260	56,945	55,423	54,956	51,128

TABLE III—PROGRESS TOTALS OF PERSONS GIVEN THIRD INJECTION OF POLIOMYELITIS VACCINE BY YEAR OF BIRTH SINCE COMMENCEMENT OF CAMPAIGN IN NEW SOUTH WALES—continued.

	1957	1958	Others	Third Injection	Second Injection	First Injection	Grand Total	Amount of Vaccine Issued
No. of Children resident in N.S.W. according to year of birth*	78,100	..	..	..	..	..
Month								
1956—July-December .. ..	..	..	..	..	360,966	464,329	825,295	841,804
1957—January-December	213	..	4,327	426,249	518,661	437,999	1,382,909	1,424,618
1958—January	221	..	1,032	35,746	2,231	1,267	39,244	41,760
February	879	..	3,399	156,422	3,386	10,392	170,200	180,950
March	754	..	2,159	67,532	10,036	20,083	97,651	105,370
April	346	..	624	9,508	19,159	8,804	37,471	40,480
May	1,712	..	3,820	88,128	10,378	13,650	112,156	120,820
June	615	..	1,313	23,747	10,032	10,553	44,332	48,320
July	1,160	..	1,014	13,561	13,618	43,429	70,608	76,060
August	2,553	..	738	13,153	39,711	69,826	122,690	132,570
September	1,750	..	774	7,867	64,443	60,735	133,045	144,330
October	2,435	..	1,462	9,886	61,357	57,467	128,710	141,740
November	4,702	136	1,942	12,542	52,374	40,866	105,782	116,980
December	3,503	214	761	8,462	37,720	13,575	59,757	68,260
Totals	20,843	350	23,365	872,803	1,204,072	1,252,975	3,329,850	3,484,062

* Estimated as at 31s tDecember, 1957.

TABLE IV — PROGRESSIVE TOTALS OF PERSONS VACCINATED IN METROPOLITAN AND COUNTRY AREAS

Month	Metropolitan				Country			
	First Injections	Second Injections	Third Injections	Total	First Injections	Second Injections	Third Injections	Total
1956—July-December	304,378	250,074	.....	554,452	159,951	110,892	.....	270,843
1957—January-December	131,577	175,520	253,584	560,681	306,422	343,141	172,665	822,228
1958—January	496	1,277	18,816	20,589	771	954	16,930	18,655
February	5,300	1,236	59,482	66,018	5,092	2,150	96,940	104,182
March	10,304	5,624	19,221	35,149	9,779	4,412	48,311	62,502
April	4,238	9,741	2,463	16,442	4,566	9,418	7,045	21,029
May	5,015	4,391	23,429	32,835	8,635	5,987	64,699	79,321
June	5,009	4,838	7,166	17,013	5,544	5,194	16,581	27,319
July	15,969	7,184	6,394	29,547	27,460	6,434	7,167	41,061
August	22,104	13,646	9,252	45,002	47,722	26,065	3,901	77,688
September	25,765	21,147	4,222	51,134	34,970	43,296	3,645	81,911
October	25,916	24,375	5,211	55,502	31,551	36,982	4,675	73,208
November	21,357	23,917	7,116	52,390	19,509	28,457	5,426	53,392
December	6,869	18,905	4,115	29,889	6,706	18,815	4,347	29,868
Totals	584,297	561,875	420,471	1,566,643	668,678	642,197	452,332	1,763,207

B. Public Health Administration

REPORT OF THE GOVERNMENT ANALYST FOR THE YEAR ENDED 31ST DECEMBER, 1958

Government Analyst: Ernest Samuel Ogg, B.Sc. (Hons.), A.R.A.C.I.

Deputy Government Analyst: William Frank Fisher, A.S.T.C., A.R.A.C.I.

The scope of the work carried out by the Branch did not differ materially from that of recent years and included:—

Analyses of food and its control under the Pure Food Act.

Analyses of blood and urine samples for alcohol and toxic gases, and blood samples in suspected drowning cases.

Analyses of biological specimens, gases, dusts in connection with occupational health.

Analyses of drugs for hospital use and in connection with drug control under the Poisons Act and the Police Offences Act (Drugs of Addiction).

Analyses of waters, sewerage and trade wastes.

Miscellaneous analyses in connection with Government Stores covering fuels, lubricating oils and greases, paints, soaps, disinfectants, inks, etc.

Analyses of post-mortem specimens for coronial enquiries.

Miscellaneous analyses in connection with criminal investigation work.

General

The number of samples examined during the year totalled 25,066 distributed as follows, the figures for the year ending 31st December, 1957 being tabled for comparison:—

Authority	Samples examined	
	1957	1958
Pure Food Act—		
Milk	10,324	10,913
Meats	7,515	7,340
Smallgoods	248	279
Other Foods	1,446	1,445
Total	19,533	19,977
Public Services of the State—		
Subsidised Institutions	536	452
Government Stores Department	790	690
Police Authorities	437	354
Coroner's Enquiries	1,724	1,426
State Municipal and Departmental Authorities—Waters	688	739
State Municipal and Departmental Authorities—Sewages	256	310
Division of Industrial Hygiene	679	737
Department of Prisons	49	58
Department of Labour and Industry and Social Welfare	18	11
Miscellaneous Authorities	481	312
	25,191	25,066

Activities

MILK

The 10,913 samples of milk examined for the purposes of the Pure Food Act included 3,759 collected in the metropolitan area by Department Food, Municipal and Shire Inspectors, 1,491 collected by the same authorities in country districts and 5,663 samples submitted by the Milk Board.

Of the total number of milks collected in the metropolitan area, 3.17 per cent. contravened the standard, while 9.20 per cent. of those collected in country districts and 3.59 per cent. of samples submitted by the Milk Board failed to conform.

Particulars of samples taken and adulterations are outlined below:—

District of Collection	Metropolitan Area		Country Districts		Milk Board		Total	
Number of Milk Samples collected	3,759		1,491		5,663		10,913	
Number and Proportions of Adulterations Found—	No.	per cent.	No.	per cent.	No.	per cent.	No.	per cent.
Deficient in milk fat	37	0.99	82	5.50	113	2.00	232	2.12
Containing added water	80	2.13	48	3.22	84	1.48	212	1.94
Deficient in milk fat and containing added water	2	0.05	7	0.48	6	0.11	15	0.14
Total Adulterations	119	3.17	137	9.20	203	3.59	459	4.20

MILK PRODUCTS

378 samples of cream were analysed and all were in conformity with the standard except one which contained no milk fat.

Three samples of ice cream out of 31 examined were deficient in milk fat.

MEAT AND MEAT PRODUCTS

7,340 samples of fresh meat products were examined. Of these 3,042 were minced meat samples, of which 10 per cent. contained a preparation of sulphur dioxide. 3,384 were sausages or sausage meat samples. Of these 6 per cent. contained an excessive amount of sulphur dioxide, and 9 samples contained excess fat. Only a relatively small number of samples were examined for fat content.

Of 279 samples of smallgoods examined, 14 contained excessive preservative and 31 contained an excessive amount of starch or cereal product.

GENERAL FOODS

Bread

28 bread samples were examined and of these only one was an unsatisfactory loaf and one sample contained rodent excreta.

44 out of 62 samples of starch reduced bread were deficient in protein. The great majority of these occurred in the first few months of the year, when the wheat crop was poor. This was later adjusted by the addition of gluten and the importation of Canadian wheat.

In addition 2 samples were examined from the Weights and Measures Department, 9 for the Department of Labour and Industry, and 58 samples for the Department of Prisons.

Canned Foods

Of 35 samples of canned meat products 8 were deficient in meat content, and one sample contained excessive fat.

Of 19 samples of canned fish, 1 sample proved unfit for human consumption.

Artificial Colour in Food

Artificial colouring contrary to regulation was found in samples of frankfurts, saveloys, canned peas and prawn crackers. In the last named case the dyestuff was not one permitted by the Regulations.

Pickles

A survey of pickles was carried out, and out of 38 samples, one contained excessive sulphur dioxide.

Spirits

A close watch was kept on the sale of spirits during the year. Out of 238 samples taken, 81 contained added water, 17 were not true to the brand stated on the label, and one contained flies.

Non-alcoholic Drinks

3 fruit drinks out of 108 examined were found to contain saccharin.

Drugs

66 samples of drugs taken under the Pure Food Act were examined, and of these one was deficient in Vitamin A content, and one was deficient in Vitamin D content.

Details of samples taken under the Pure Food Act and particulars of adulterations are included in Table I.

SUBSIDISED INSTITUTIONS

452 samples were analysed for subsidised institutions, comprising body fluids and tissues, foodstuffs, drugs, etc.

GOVERNMENT STORES DEPARTMENT

The Government Stores Department forwarded 690 samples for analyses, including drugs, cleansers, detergents, disinfectants, glues, insecticides, lubricants, paints, polishes, soaps, foods.

WATERS, SEWERAGES, ETC.

739 samples of water and 310 samples of sewage and effluents were examined on behalf of State, Municipal and Departmental authorities in connection with water treatment plants, sewage installations, swimming pools, private water supplies, and discharge of trade effluents into watercourses and other public places.

INDUSTRIAL HYGIENE

Authorities submitted 737 specimens of biological fluids, air samples, dusts, etc., in connection with occupational health.

CRIMINAL INVESTIGATION

354 exhibits were examined for the Police Department. A table showing the nature of the exhibits and the attendant charges is attached under Table II. Work in this section has advanced considerably in regard to detail, particularly with reference to paint flakes and fibres, but there is still room for improvement and considerable investigation and research is needed as regards other facets of this department.

CORONIAL ENQUIRIES

Coroners submitted 1,426 exhibits in connection with 560 death forming the subject of police investigations. A table showing details of the findings in those cases is attached (Table III).

In point of numbers barbiturates easily rank first in the number of positive findings. Owing to the wide differences in the rate of break down of barbiturates in the organs it is difficult in a number of these cases to definitely pin-point the drug as the cause of death. Interesting also is the number of cases where an overdose of straight chain ureides had been taken, these drugs being readily available without the need of a prescription. There was one case of a baby being administered oil of chenopodium in error. Parathion claimed 10 victims during the year, all the result of self-administration or accident.

380 specimens of blood and 52 of urine from subjects of coronial enquiries were submitted for alcoholic content. A break down of the results is shown below:—

Alcoholic Content mg/100 ml.									Blood	Urine
Nil	..	..	..	..	..	..	..	..	174	3
0- 50	..	..	..	..	..	..	..	..	41	5
51-100	..	..	..	..	..	..	..	..	24	2
101-150	..	..	..	..	..	..	..	..	39	4
151-200	..	..	..	..	..	..	..	..	33	4
201-250	..	..	..	..	..	..	..	..	29	6
251-300	..	..	..	..	..	..	..	..	15	8
301-350	..	..	..	..	..	..	..	..	10	8
351-400	..	..	..	..	..	..	..	..	8	6
400	..	..	..	..	..	..	..	..	7	6
Total	..	..	..	..	..	..	..	..	380	52

Too much inference cannot be derived from these figures, as in the majority of cases no information is available as to the history of drinking, or the time that had elapsed since the last drink consumed.

21 blood exhibits showed concentration of carbon monoxide exceeding 40 per cent. of saturation, and 3 blood exhibits indicated death by drowning.

TABLE I—PARTICULARS OF SAMPLES EXAMINED IN CONNECTION WITH THE PURE FOOD ACT

Nature of Sample	No. Examined	No. Adulterated	Particulars of Adulteration
Apple Juice	1	..	.....
Apple Pulp	1	..	.....
Beer	94	..	.....
Beer, Waste	1	..	.....
Bread, Brown	4	..	.....
Bread, White	32	1	Rodent excreta.
		1	Unsatisfactory load.
Bread, Starch Reduced	62	44	Insufficient protein.
Vita Brits	1	..	.....
Butter	11	..	.....
Cakes	5	..	.....
Caramel Flavour Syrup	2	..	.....
Caraway Seed	1	1	Unfit for use.
Cherry Cordial	1	..	.....
Chocolate Syrup	2	..	.....
Coca Cola	2	..	.....
Coffee	3	1	Not coffee.
Coffee Essence	1	..	.....
Coffee and Chicory	2	..	.....
Coffee and Chicory Essence	3	..	.....
Compound Cordial	1	..	.....
Confectionery	2	2	Paraffin coated.
Custard Syrup	1	..	.....
Cream, Milk Board	272	1	No milk fat.
Cream, Pure Food	106	..	.....
Cream Mixtures	4	..	.....
Cucumbers	1	1	Unsuitable for human consumption.
Dairy De-lite	1	..	.....
Dates	1	1	Unsuitable for human consumption.
Fairy Floss	7	..	.....
Figs	1	1	Unsuitable for human consumption.
Fish—Cooked	1	..	.....
Fish, Fresh	4	..	.....
Fish, Smoked	18	..	.....
Fish, Prawn Crackers	1	1	Unlisted food colour.
Fish, Tinned	19	1	Unfit for human consumption.
Flour, S.R., Wheatmeal	10	..	.....
Foodstuffs	2	1	Unsuitable for human consumption.
Fruit Cup Cordial	3	..	.....
Fruit Juice Cordial	6	..	.....
Fruit Salad	1	..	.....
Fruit Salad Flavoured Cordial	1	..	.....
Fyneapple	1	..	.....
G.I. (Summer or Temperance Drink)	1	..	.....
Ginger Ale, Beer, etc.	9	..	.....
Gluten	2	..	.....
Grapefruit Cordial	3	..	.....
Honey	12	..	.....
Horehound Beer	1	..	.....
Ice Blocks	13	..	.....
Ice Cream	31	3	Deficiency in milk fat.
Ice Cream Mixture	6	..	.....
Icing Sugar, Mixture	9	1	Cornflour estimated as starch.
Irish Stew	4	..	.....
Kola	11	..	.....
Lemon Drinks	56	2	Saccharin found.
Lime Juice Cordial	11	3	Deficient in fruit juice.
		1	4 gr. sulphur dioxide.
Margarine	4	..	.....
Meal	1	..	.....
Meat, Fresh (Pure Food Inspector)	558	6	Illegally preservatised.
Meat, Fresh (Municipal)	21	2	Illegally preservatised.
Meat, Fresh, Minced (Pure Food Inspector)	2,860	305	Illegally preservatised.
Meat, Fresh, Minced (Municipal)	182	7	Illegally preservatised.
Meat, Fresh, Sausages (Pure Food Inspector)	3,150	201	Excess preservative.
		9	Excess fat.
Meat, Fresh, Sausages (Municipal)	234	2	Excess preservative.
Meat, Fresh, Tripe (Pure Food Inspector)	322	12	Illegally preservatised.
		9	Did not comply with limits of pH.
Meat, Fresh, Tripe (Municipal)	13	1	Illegally preservatised.
Meat, Cooked, Smoked	4	..	.....
Meat Pies	1	..	.....
Meat, Fresh (General Register)	2	..	.....
Meat, Tinned	35	8	Below 80 per cent. meat.
		1	Excess salt.
		1	Excess fat.
		2	No indication as to method of cooking.
Meat Smallgoods	296	3	Artificial colour found.
		14	Contained excess preservative.
		31	Contained excess starch.
Milk, Fresh, Metropolitan	3,759	119	Deficiency in milk fat : 232.
Milk, Fresh, Country Districts	1,491	137	Containing added water : 212.
Milk, Fresh, Milk Board	5,663	203	Deficiency in milk fat and containing added water : 15.

PARTICULARS OF SAMPLES EXAMINED IN CONNECTION WITH THE PURE FOOD ACT—*continued*

Nature of Sample	No. Examined	No. Adulterated	Particulars of Adulteration
Milk, Condensed, Powdered	4	1	Unfit for human consumption.
Milk Shake Additive	1	..	.....
Milk Shake Syrup	3	..	.....
Mushrooms	10	..	.....
Oil, Edible	1	..	.....
Olive Oil	4	..	.....
Orange Drinks	52	1	Saccharin found.
Passionfruit Cordials	7	1	Deficient in fruit juice.
Pastry	1	..	Deficient in fruit juice.
Peanut Butter	1	1	.....
Peanut Oil	1	..	Glass fragments.
Peas	16	1	.....
Peppermint Cordial	2	2	Dyestuff found.
Pickles	38	1	Deterioration of flavour and appearance.
Pineapple Cordials	8	..	.....
Pineapple, Tinned	1	..	Excess sulphur dioxide.
Pola Cream	1	..	.....
Potato	1	..	.....
Pro Vita Wheat Germ	1	..	.....
Raspberry Syrup	4	..	.....
Rat Poison	1	..	.....
Salad Dressing	1	..	.....
Sauce	1	..	.....
Smoke, Essence of	1	..	.....
Smoko	1	..	.....
Snow Dream	2	..	.....
Sparkling Cocktail	3	..	.....
Strawberry Fruit Juice, Cordials, etc. ..	5	..	.....
Sugar	4	..	.....
Spirits	236	81	Water added.
Tea	3	1	Contained flies.
Tomato Sauce	3	17	Not according to label.
Vanilla Cordials, etc.	1	..	.....
Vanilla Essence	3	..	.....
Waffles	2	..	.....
Wine	29	4	Added water.

DRUGS, etc.

A.P.C. Powders	2	..	.....
Aspirin	1	..	.....
Aureomycin	1	..	.....
Austrosol	1	..	.....
Bicarbonate of Soda	1	..	.....
Chlorpromazine Tablets	7	6	.....
Cosmetics	1	..	.....
Dextrose	1	..	.....
Dexedrine Tablets	6	5	.....
Dragees Progynon Ointment	2	..	.....
Glaubers Salts	1	..	.....
Healex Spray Bandage	2	..	.....
Hexachlorophene	1	..	.....
Kerosene	1	..	.....
Methyltestosterone Tablets	1	..	.....
Monosodium Glutamate	1	..	.....
Myzone Tablets	1	..	.....
Neosporin	5	..	.....
Noludar Tablets	1	..	.....
Oestradiol Dragees	2	..	.....
Penicillin Ointment	2	..	.....
Pentonal Tablets	1	..	.....
Phenobarbitone	1	..	.....
Retreet Tablets	1	..	.....
Soda	1	..	.....
Sodium Salicylate Tablets	1	..	.....
Sparine	1	..	.....
Stilboestrol	1	..	.....
Vitamin Capsules	1	..	.....
Vitamin A	1	1	Contained not more than 21,000 inter- national units.
Vitamin B	4	..	.....
Vitamin C	1	..	.....
Vitamin D	1	1	10,000 international units found.
Vitamin E	4	..	.....

TABLE II—CRIMINAL INVESTIGATION

Nature of Exhibits	No. of Exhibits	Nature of Charges
Clothing	61	Rape, offensive behaviour, stealing, armed hold-up, manslaughter, causing grievous bodily harm, throwing corrosive fluid, arson.
Paint Flakes	70	Safe robbing, break enter and steal, drive under influence, hit-run accidents, manslaughter.
Drugs	43	Animal doping, attempted murder, smuggling, unlawful use of instruments, offences against the Poisons Act and the Police Offences Amendment (Dangerous Drugs) Act.
Food	22	Attempted murder, suspected poisoning, assault and battery, selling liquor without licence, attempted suicide, break, enter and steal.
Carpets, mattress, etc.	11	Arson.
Blood	37	Drive under influence (36). Carnal knowledge (1).
Urine	7	Drive under influence, carnal knowledge, suspected poisoning.
Earth, Water and Oil	19	Arson resulting in explosion and death.
Stomach Contents	2	Stealing and attempted murder.
Proofing material	3	False pretences.
Safe packing and Fibres	6	Break, enter and steal.
Aqua Lung	1	Death while spear-fishing.
Tools	9	Break, enter and steal.
Miscellaneous	11	Arson.
Opium	1	Opium in possession.
Miscellaneous (Petrol, Tobacco, Bullets, Abrasive, Hair and Nails, Fibrous Material, Metal Fragments).	51	Malicious damage, suspected poisoning, animal killing, sabotage to aircraft, receiving stolen goods.

TABLE III—CORONIAL INVESTIGATIONS

Result of examination	No. of Cases	Result of examination	No. of Cases
Negative for poison	119	Mepazine	1
Arsenic	16	Nicotine	4
Barbiturates	64	Paraphenylenediamine	1
Other Ureides	23	Phenol	1
Chenopodium Oil	1	Quinidine	1
Chloral	4	Quinine	1
Cyanide	3	Quinine, Strychnine, Ergot	1
Dimethyl Phthalate	1	Parathion	10
Ethinamate	1	Strychnine	10
Glutethimide	1	Thallium	2
Lysol	2		

PURE FOOD ACT, 1908-1958

Report of the Chief Inspector on the General Administration of the Pure Food Act, 1908-1958, for the Year ended 31st December, 1958

STAFF

Chief Inspector, W. J. Madgwick; Deputy Chief Inspector; Senior Inspector (Newcastle); 14 Inspectors; 1 Clerk; 1 Attendant.

I submit herewith particulars of the work performed by the Staff of the Pure Food Branch for the year ended 31st December, 1958.

The work includes the supervision of the sale of food and drugs, the premises in which they are prepared, stored and sold and the equipment, appliances and vehicles, and the carrying out of the incidental duties necessary to secure the wholesomeness, cleanliness and freedom from contamination of food and drugs, and compliance with the legal provisions set out in the Pure Food Act, 1908-1958 and Regulations thereunder.

PREMISES

Of 7,345 premises inspected, 371 notices were served on traders to effect structural repairs or to remedy other defects in regard to their premises. Forty-five traders were successfully prosecuted for failing to keep premises clean.

GENERAL BREACHES

These were for unclean utensils, appliances, etc., fly and cockroach infested premises, foods exposed to contamination, smoking during food preparation, etc., unnecessary food handling and for improper methods of food wrapping, etc. The total number of breaches for which prosecutions were successfully instituted was 278.

SAMPLES

These comprised a wide range of foods and drugs totalling 12,535 samples purchased and submitted for analysis under the prescribed procedure in the "Act". Legal proceedings were instituted in 993 of these cases in which the samples did not comply with the particular standard required by the Regulations.

SEIZURE AND DESTRUCTION OF DETERIORATED FOOD AND DRUGS

Food found to be unfit for human consumption placed under seizure and subsequently destroyed under supervision by the Department's Officers comprised over 112 tons, and in addition 6,511 head of poultry were destroyed on account of their emaciated or diseased condition.

LEGAL PROCEEDINGS

The total number of prosecutions successfully instituted by Departmental Officers was 1,322, and the total amount of fines and costs imposed was £11,271 13s. 0d., this being the largest amount of fines and costs in any year since the inception of the "Act".

There does appear, however, to be an improvement in the maintenance and conduct of food premises and in food handling generally, and this year's figures also indicate a decrease in the adulteration of food. A summary of the work performed is given in the following tables:—

TABLE I—SUMMARY OF WORK PERFORMED BY PURE FOOD OFFICERS FOR THE YEAR ENDING 31ST DECEMBER, 1958

Milk	Samples Taken by		Total
	Departmental Officers	City, Municipal and Shire Council Inspectors	
Number of samples from all Parts of the State	3,930	1,027	4,957
Number below Standard	169	44	213
Number of Warnings	8	10	18
Number of Prosecutions	161	34	195
Amount of Fines and Costs	£923 5s. 0d.	£177 14s. 0d.	£1,100 19s. 0d.

Food and Drugs, Other than Milk

Number of Samples from all Parts of the State	8,605
Number below Standard	891
Number of Warnings	59
Number of Prosecutions	832
Amount of Fines and Costs	£7,116 13s. 0d.

Food and Drugs unfit for Consumption, Seized and Destroyed

The seizures and destructions comprised over 112 tons of food and drugs, 6,511 head of poultry, 377 tins and bottles of food and 9,640 tablets.

Number of Prosecutions .. .. .	.....
Amount of Fines and Costs .. .. .	.....

Inspection of Premises Used for the Preparation, Sale and Storage of Food

Number of inspections in all Parts of the State	7,345
Number of Notices Issued	371
Number of Prosecutions	45
Amount of Fines and Costs	£890 10s. 0d.

Particulars of General Breaches of Pure Food Act and Regulations

Number of Prosecutions	278
Amount of Fines and Costs	£2,233 5s. 0d.

Action Taken under Other Acts—Medical Practitioners Act

Number of Prosecutions	6
Amount of Fines and Costs	£108 0s. 0d.

TABLE II—SUMMARY OF LEGAL PROCEEDINGS, 1958

Offences under Pure Food Act, 1908-58									No. of Prosecutions	Amount of Fines and Costs		
										£	s.	d.
Adulterated Milk	..	..	..	..	..	..	..	..	161	923	5	0
Adulterated Foods and Drugs	..	..	..	..	..	..	..	..	832	7,116	13	0
Unclean Premises	..	..	..	..	..	..	..	..	45	890	10	0
General Breaches	..	..	..	..	..	..	..	..	278	2,233	5	0
Medical Practitioners Act	..	..	..	..	..	..	..	..	6	108	0	0
Grand Total	..	..	..	..	..	..	..	..	1,322	11,271	13	0

TABLE III — SUMMARY OF WORK CARRIED OUT BY PURE FOOD OFFICERS UNDER THE PURE FOOD ACT, 1908-1958

From the Date of its Operation (October, 1909, to 31st December, 1958)

					No. of Premises Inspected	Total No. of Samples Taken	Total Below Standard	Prosecutions	Amount of Fines and Costs		
									£	s.	d.
Premises Inspected	..	..	..	..	451,306	....	....	3,072	20,239	2	0
Breaches of Act and Regulations	..	..	..	..	....	....	....	4,532	19,997	19	6
Milk Samples	..	..	..	..	....	383,903	12,869	8,337	42,662	18	0
Food and Drug Samples	..	..	..	..	....	227,874	18,945	13,555	60,018	16	10
Food and Drug Seizures	..	..	..	..	....	....	....	435	2,044	11	0
Totals	..	..	..	..	451,306	611,777	31,814	29,931	144,963	7	4

Food and Drug Samples

Particulars of Samples of Food and Drugs taken for Analysis by Departmental Officers during the Year ending 31st December, 1958

Samples					No. of Samples	No. of Warnings	No. of Prosecutions	Amount of Fines and Costs		
								£	s.	d.
Ales and Beer	..	..	..	..	91	..	..	..	..	..
Bread	..	..	..	..	102	..	22	130	0	0
Butter	..	..	..	..	10	..	..	..	..	..
Cereals	..	..	..	..	1	..	..	..	..	..
Cheese	..	..	..	..	118	..	..	..	..	..
Coffee and Chicory	..	..	..	..	7	..	..	..	..	..
Condiments	..	..	..	..	4	..	..	..	..	..
Confectionery	..	..	..	..	11	..	4	20	0	0
Cordials, S. and T. Drinks	..	..	..	..	194	1	5	22	0	0
Cream and Cream Mixture	..	..	..	..	98	..	..	..	..	..
Drugs and Disinfectants	..	..	..	..	36	..	3	73	0	0
Essences	..	..	..	..	3	..	..	..	..	..
Fish	..	..	..	..	43	..	1	6	0	0
Flour	..	..	..	..	10	1	1	6	0	0
Fruit (Preserved)	..	..	..	..	5	..	..	..	..	..
General	..	..	..	..	26	1	..	..	..	..
Ice-Cream and Flavoured Ices	..	..	..	..	54	..	2	22	0	0
Icing Sugar and Mixture	..	..	..	..	9	3	1	11	0	0
Margarine	..	..	..	..	2	..	..	..	..	..
Meat	..	..	..	..	7,579	51	602	4,986	2	0
Meat (Canned)	..	..	..	..	16	..	..	..	..	..
Milk and Flavoured Milk	..	..	..	..	3,930	8	161	923	5	0
Milk (Powdered)	..	..	..	..	4	..	..	..	..	..
Oils (Edible)	..	..	..	..	5	..	..	..	..	..
Pastry	..	..	..	..	8	..	..	..	..	..
Pickles	..	..	..	..	37	2	..	..	..	..
Spirits	..	..	..	..	165	..	*179	1,727	9	0
Vegetables	..	..	..	..	30	..	4	35	2	0
Walnuts	..	..	..	..	6	..	4	34	0	0
Wine	..	..	..	..	22	..	4	44	0	0
Wines, Medicated	..	..	..	..	9	..	..	..	..	..
Totals	..	..	..	..	12,535	67	993	8,039	18	0

* 101 prosecutions pending from previous years.

Particulars of Inspections by Pure Food Branch Officers during 1958

District							No. of Inspections	No. of Notices	No. of Prosecutions	Amount of Fines and Costs		
										£	s.	d.
Albury							43	3	..			
Armidale							55	..	1	31	0	0
Ashfield							112	3	1	31	0	0
Auburn							101	5	1	26	0	0
Ballina							9	4	..			
Bankstown							183	1	..			
Barraba							19	5	..			
Bathurst							67	4	..			
Bega							60	4	..			
Bellingen							20	..	1	5	0	0
Blacktown							24	3	1	6	0	0
Blue Mountains							8	..	..	
Boorowa							23	..	..	
Botany							46	1	..			
Bowral							10	1	..			
Braidwood							6	..	..	
Broken Hill							20	..	1	1	0	0
Burrengong							6	..	..	
Burwood							101	2	..			
Byron Bay							16	2	..			
Canterbury							246	2	..			
Casino							51	1	..			
Cessnock							45	6	..			
Coffs Harbour							94	9	..			
Corrumbion							24	3	1	21	0	0
Cooma							23	..	1	16	0	0
Cowra							44	1	..			
Drummoyne							31	1	..			
Dubbo							47	1	..			
Dungog							21	1	..			
Eurobodalla							53	2	..			
Fairfield							46	1	..			
Glen Innes							35	2	..			
Gloucester							16	1	..			
Gosford							76	3	1	12	0	0
Goulburn							43	..	..	
Grafton							68	6	..			
Gulgong							17	..	3	63	0	0
Gunnedah							17	..	..	
Guyra							10	1	..			
Hay							13	..	..	
Holroyd							105	2	..			
Hornsby							83	2	..			
Hunter's Hill							35	..	..	
Hurstville							126	..	..	
Imlay							18	4	1	15	0	0
Inverell							23	5	1	16	0	0
Junee							67	..	..	
Kempsey							9	4	..			
Kiama							3	..	..	
Kogarah							71	..	..	
Ku-ring-gai							172	3	..			
Kyogle							10	4	..			
Lake Macquarie							108	14	1	21	0	0
Lane Cove							66	6	..			
Leeton							12	..	..	
Leichhardt							249	5	1	31	0	0
Lismore							65	13	..			
Lithgow							14	..	..	
Liverpool							23	3	..			
Maclean							14	..	..	
Macleay							21	..	..	
Maitland							55	5	1	21	0	0
Manilla							12	..	..	
Manly							211	4	..			
Manning							9	2	..			
Marrickville							123	3	1	26	0	0
Mosman							118	6	..			
Moss Vale							10	..	1	11	0	0
Mudgee							26	..	..	
Mullumbimby							8	2	..			
Mulwaree							12	..	..	
Mumbula							13	..	..	
Murrurundi							6	1	..			
Muswellbrook							27	..	1	13	0	0
Nambucca							20	3	1	4	0	0
Namoi							19	3	..			
Narrabri							19	..	1	10	0	0
Newcastle							324	50	2	31	0	0
North Sydney							235	8	1	51	10	0
Nowra							3	..	..	
Oberon							9	..	..	
Orange							22	..	..	
Parramatta							140	6	..			
Penrith							34	..	1	26	0	0
Port Macquarie							10	2	..			

Particulars of Inspections by Pure Food Branch Officers during 1958—*continued*

District	No. of Inspections	No. of Notices	No. of Prosecutions	Amount of Fines and Costs
				£ s. d.
Port Stephens	34	14	1	11 0 0
Queanbeyan	101	..	1	16 0 0
Quirindi	3	..	..	....
Randwick	129	5	1	26 0 0
Rockdale	138	5	..	....
Ryde	164	2	1	8 0 0
Scone	16	7	1	21 0 0
Severn	9	3	2	42 0 0
Shellharbour	6	..	..	....
Shoalhaven	50	..	..	....
Singleton	20	..	..	....
Snowy Mountains	31	..	2	14 0 0
Strathfield	101	1	2	42 0 0
Stroud	4	1	..	....
Sutherland	94	1	..	....
Sydney	539	19	3	123 0 0
Tallanganda	7	2	..	....
Tamworth	89	8	..	....
Taree	11	1	..	....
Temora	12	..	2	38 0 0
Tenterfield	20	3	..	....
Tintenbar	10	2	..	....
Tweed	31	2	..	....
Ulmara	8	2	..	....
Uralla	19	4	..	....
Wade	26	..	..	....
Wagga Wagga	51	..	..	....
Walcha	5	4	..	....
Warialda	10	..	1	26 0 0
Warringah	217	8	..	....
Waverley	128	3	..	....
Wellington	25	..	..	....
Willoughby	198	6	..	....
Wingecarribee	14	1	..	....
Wingham	13	2	..	....
Wollongong	154	2	1	31 0 0
Woodburn	18	3	1	4 0 0
Woollahra	68	14	..	....
Wyang	42	4	..	....
Yallaro	5	3	..	....
Yass	17	..	..	....
	7,345	371	45	890 10 0

Seizures

Particulars of Food and Drugs seized as unfit for Human Consumption and Destroyed during the Year ending 31st December, 1958

Goods	Tons	Cwts.	Qrs.	Lb.	Bottles, etc.
Biscuits	1	2	12	144 Bottles. 9,640 Tablets. 150 Tins.
Butter .. .. .	..	8	..	..
Cereals	5	2	1	..	
Cheese .. .. .	..	5	2	..
Coconut, Dessicated	1	4	1	14	
Condiments .. .. .	..	..	..	..
Drugs .. .. .	..	7	1	..
Fish	53	10	2	..	
Flour .. .. .	..	2	3	14
Fruit, Dried	8	..	2	20	
Fruit, Preserved	17	1	23	6,511 Head. 83 Tins.
General, Groceries	2	18	..	..
Meat .. .. .	..	19	2	10
Mono-sodium Glutamate	..	8	3	14	
Olives	1	3	2	..	
Pepper .. .. .	..	2	..	14
Poultry .. .. .	..	..	..	..
Salt .. .. .	..	2	1	18
Soup .. .. .	..	..	..	..
Tea	14	16	..	6	
Vegetables	18	13	2	18	144 Bottles. 9,640 Tablets. 233 Tins. 6,511 Head.
Walnuts	3	3	1	21	
	112	8	0	16	

Particulars of General Breaches of the Act and Regulations undertaken by Departmental Officers during the Period 1st January to 31st December, 1958

								No. of Prosecutions	Amount of Fines and Costs.		
									£	s.	d.
No methyl violet in waste beer	..	..	..	..	..	..	..	18	92	0	0
Bags on dough	..	..	..	..	..	..	..	14	120	0	0
Smoking in food premises	..	..	..	..	..	..	..	72	457	10	0
Unlabelled oysters	..	..	..	..	..	..	..	12	66	0	0
Bread in contact with newspaper	..	..	..	..	..	..	..	2	8	0	0
Bread and other food exposed to dust, etc.	..	..	..	..	..	..	..	60	438	10	0
Food exposed on counter	..	..	..	..	..	..	..	25	221	0	0
Unnecessary food handling	..	..	..	..	..	..	..	10	70	0	0
Meat improperly wrapped and in contact with newspaper	..	..	..	..	..	..	..	2	7	0	0
Poisonous substances in food container	..	..	..	..	..	..	..	1	6	0	0
Cockroach and fly infested premises	..	..	..	..	..	..	..	24	331	12	0
Refuse to state name and address	..	..	..	..	..	..	..	1	5	0	0
Refuse to allow sample to be taken	..	..	..	..	..	..	..	1	21	0	0
Offer bribe to an officer	..	..	..	..	..	..	..	1	19	3	0
Obstruct an officer	..	..	..	..	..	..	..	1	11	0	0
Unclean utensils, appliances, etc.	..	..	..	..	..	..	..	18	225	0	0
Unclean vehicle	..	..	..	..	..	..	..	2	12	10	0
Permit dog on food vehicle	..	..	..	..	..	..	..	1	11	0	0
Cats on premises	..	..	..	..	..	..	..	1	4	0	0
Mice infected premises	..	..	..	..	..	..	..	2	42	0	0
Milk not protected from sun	..	..	..	..	..	..	..	1	3	0	0
No name on milk cart	..	..	..	..	..	..	..	2	7	0	0
Sell unlabelled food	..	..	..	..	..	..	..	5	28	0	0
Sold other than meat for human consumption	..	..	..	..	..	..	..	1	21	0	0
Milk not in hermetically sealed containers..	..	..	..	..	..	..	..	1	6	0	0
Totals	..	..	..	..	..	..	..	278	£2,233	5	0

Particulars of General Breaches of the Act and Regulations reported on Boards Approval from City, Municipal and Shire Councils during the Year ending 31st December, 1958

Council				Particulars of Offence				No. of Prosecutions	Fines and Costs		
									£	s.	d.
Auburn	..	..	..	Unclean premises	..	..	..	3	119	10	0
Bland	..	..	..	Unclean premises	..	..	..	1	23	0	0
				Smoking in food shop	..	..	..	1	8	0	0
Kogarah	..	..	..	Unclean utensils	..	..	..	1	32	0	0
Kyeamba	..	..	..	Unclean premises	..	..	..	1	25	0	0
Leichhardt	..	..	..	Unclean premises	..	..	..	3	38	10	0
				Smoking in food shop	..	..	..	2	18	8	0
				Bread exposed to dust	..	..	..	3	22	11	0
				Cockroach infested premises	..	..	..	1	9	3	0
Lockhart	..	..	..	Fly infested premises	..	..	..	1	8	3	0
Parkes	..	..	..	Unclean premises	..	..	..	1	10	0	0
Rylstone	..	..	..	Unclean premises	....	..	..	1	20	4	0
Tweed	..	..	..	Unclean premises	..	..	..	1	7	0	0
Wagga Wagga	..	..	..	Fly infested premises	..	..	..	1	11	0	0
				Unclean utensils	..	..	..	2	16	6	0
				Unclean premises	..	..	..	1	8	3	0
				Bread exposed	..	..	..	1	3	0	0
Wollongong	..	..	..	Adulterated fish	..	..	..	1	28	2	0
				Smoking in food shop	..	..	..	2	13	3	0
Woollahra	..	..	..	Smoking in food shop	..	..	..	3	40	0	0
Totals	..	..	..					31	461	3	0

Particulars of Samples of Milk taken by Authorised Officers of City, Municipal and Shire Councils during the Year ending 31st December, 1958

Council	No. of Samples	No. below standard	No. of Warnings	No. of Prosecutions	Amount of Fines and Costs
					£ s. d.
Albury	16				
Bathurst	72				
Bland	8	4		4	16 6 0
Broken Hill	18				
Cooma	4				
Coonabarabran	14	4	1	3	21 0 0
Cootamundra	32				
Cowra	18	1	1		
Culcairn	16				
Dubbo	44	1	1		
Gilgandra	14				
Gunnedah	16				
Inverell	5				
Kempsey	12	1	1		
Kyogle	10	1		1	9 3 0
Leeton	15				
Maitland	14				
Newcastle	29	1		1	4 0 0
Oberon	4				
Sydney	420	5	2	3	12 0 0
Tallanganda	7	1		1	4 10 0
Tamworth	20	1		1	8 5 0
Tenterfield	16	1		1	25 4 0
Timbregongie	10	10		10	31 10 0
Tweed	15				
Wade	12	1		1	4 0 0
Wagga Wagga	90	6	1	5	31 6 0
Wakool	10	1		1	3 0 0
Wellington	21				
Windsor	9	2	1	1	1 10 0
Woollahra	14	2	1	1	6 0 0
Young	22	1	1		
Totals	1027	44	10	34	£177 14 0

Particulars of Samples of Meat taken by City Councils during the Year ending 31st December, 1958

Council	No. of Samples	No. below Standard	No. of Warnings	No. of Prosecutions	Amount of Fines and Costs
					£ s. d.
Maitland	14				
Newcastle	100	4		4	33 17 0
Wagga Wagga	140	3		3	21 0 0
Totals	154	7		7	£54 17 0

HEALTH INSPECTION BRANCH

Annual Report of the activities during the Year ending 31st December, 1958

Staff: Chief Health Inspector, Mr. K. R. Horne, F.I.H.S.; Deputy Chief Health Inspector, Mr. D. H. Way, F.I.H.S.; 7 certificated Health Inspectors; 2 licensed Surveyors; 1 senior female tracer; 2 Junior Clerks and 1 Records Attendant.

In addition 4 Senior Inspectors are attached to the offices of the Medical Officers of Health, Metropolitan Health District; Hunter River Health District; South Coast Health District; and Mitchell Health District. The Richmond-Tweed Health District was temporarily closed, due to inability to obtain the services of a Medical Officer of Health.

During the year the Health Inspection records were transferred from the central records, together with the Records Attendant placed under the charge of the Chief Health Inspector.

An additional Junior Clerk was added to the Branch during the year, (making a total of 2 junior clerks).

Generally investigation of complaints and town inspections showed a slight decrease over the previous year, due to the increase in the number of septic tank and septic closet applications received by this office, together with the shortage of staff.

In November, 1958, the Board of Health formally approved of Single Treatment septic tanks. A copy of the Board of Health's requirements regarding all types of septic tanks was immediately forwarded to every Shire and Municipal Council throughout the State.

During the year under review, the Board of Health approved of 630 Noxious Trade applications.

Forty-seven new sanitary depot sites were recommended for approval by the Board during the year.

Septic tank and septic closet applications increased by 1,007 and 3,212 respectively, over the previous year. Inspections of septic tank sites also increased by 1,023.

Applications in connection with searches for Unhealthy Building Land received from Solicitors for the year amounted to 50,235, an increase of 6,470 over the previous twelve months.

Six new areas were notified as unhealthy building land under the provisions of Sections 54, 55 Public Health Act, 1902-1952. These areas are situated at Werrington, Orange (2), Glenbrook, Raymond Terrace and Birmingham Gardens.

Two previously notified areas of land situated at Hurstville and Parramatta, were revoked.

PRIVATE HOSPITALS ACT, 1908-1954

Report on the Operation of the Act for the Year ended 31st December, 1958

By A. J. Hope, M.B., Ch.M.

The year has shown steady progress in the number of Private Hospitals and of Rest Homes, and in number of beds; the latter being the more marked due to more recent establishments generally coming within the classification of eleven to twenty or more beds.

Inquiries from those who wish to conduct licensed premises, and requests for inspection of them are numerous and increasing, with the prospect that the coming year will show a very considerable increase again.

Overcrowding remains a marked factor indicating that there is still room for the expansion of accommodation at proper standards.

Complaints received are investigated and conditions such as inadequate and unappetising food, often lacking in vitamin and heat production content for elderly people, inadequate provision of artificial warmth in the cold weather, general lack of sympathy, etc., are unfortunately too often revealed. These factors are frequently attributed to the fact that more premises are being conducted primarily as commercial rather than humanitarian enterprises.

A common and persistent complaint concerns fees over which we have no control. Nevertheless it is a most distressing one, and the cause of considerable anxiety to many inmates and connections in finding the weekly amount with a threat of dismissal from a Rest Home ever present; the position is to be deplored.

The increasing interest shown by Church and Charitable bodies in providing good amenities in pleasant and kindly surroundings at minimum cost to Rest Home patients is a good omen for the future as competitively this should tend to offset, and influence to advantage lower standards when they exist elsewhere.

TABLE I — SHOWS THE NUMBER OF PRIVATE HOSPITALS IN CATEGORIES

	M.S.L.	M.S.	L.	M.PO	M.	Psy.	M.L.	M.PO.L.	M.S.PO.	Total
Metropolitan ..	19	37	7	49	3	3	1	1	..	120
Country ..	22	8	11	8	2	..	2	10	1	64
Total ..	41	45	18	57	5	3	3	11	1	184
Loss or Gain ..	—12	—5	—4	+18	No Change	+1	—1	+7	No Change	+4 2.2%

TABLE II — SHOWS BED CAPACITY OF DIFFERENT CATEGORIES OF HOSPITALS

	M.S.L.	M.S.	L.	M.PO.	M.	Psy.	M.L.	M.PO.L.	Total
Metropolitan	709	1,021	27	974	65	57	8	10	2,871
Country	167	126	77	115	28	..	9	72	594
Total	876	1,147	104	1,089	93	57	17	82	3,465
Loss or Gain	—89	—207	—31	+565	—3	+23	—8	+48	+288 9%

Medical, post-operative and psychiatric beds show an increase, other beds are decreased.

TABLE III — SHOWS CLASSIFICATION OF PRIVATE HOSPITALS WITH RESPECT TO SIZE AS SIGNIFIED BY NUMBER OF BEDS

	1 Bed	2 Beds	3 Beds	4-5 Beds	6-10 Beds	11-20 Beds	Over 20	Total
Sydney and District .. ..	..	2	2	4	24	45	43	120
Country	7	2	3	11	19	17	5	64
Total	7	4	5	15	43	62	48	184

TABLE IV — SHOWS TREND DURING FIVE YEAR PERIOD—31ST DECEMBER, 1953, TO 31ST DECEMBER, 1958

	Total Hospitals	Total Beds	1 Bed	2 Beds	3 Beds	4-5 Beds	6-10 Beds	11-20 Beds	Over 20 Beds
1953	172	2,625	10	10	7	19	50	43	33
1958	184	3,465	7	4	5	15	43	62	48
Variation	+12	+840	—3	—6	—2	—4	—7	+19	+15
Percentage	7%	32.4%	..	..	..	..	..	..	..

The increase is wholly in those hospitals accomodating more than ten patients: there is a decrease in those with ten or less beds.

REST HOMES

TABLE I — SHOWS THE NUMBER OF HOMES AND OF BEDS IN EACH CATEGORY

	Number of Homes				Number of Beds			
	General	After-care	Psychiatric	Total	General	After-care	Psychiatric	Total
Metropolitan ..	201	1	3	205	3,860	24	35	3,919
Country	16	..	..	16	226	..	..	226
Total ..	217	1	3	221	4,086	24	35	4,145
Interim Licenses								
Metropolitan ..	9	..	..	9	113	..	..	113
Country	2	..	..	2	18	..	..	18
Total Interims ..	11	..	..	11	131	..	..	131
Grand Total	228	1	3	232	4,217	24	35	4,276
Variation ..	+10	—1	No Change	+9 4%	+507	—33	No Change	+474 11.3%

There has been a considerable increase in Homes and beds in the "General" class only.

TABLE II — REST HOMES IN ACCORDANCE WITH THE NUMBER OF BEDS;

	1 Bed	2 Beds	3 Beds	4-5 Beds	6-10 Beds	11-20 Beds	Over 20	Total
Metropolitan ..	1	..	..	10	56	90	57	214
Country .. ..	..	..	..	..	7	9	2	18
Total ..	1	..	..	10	63	99	59	232
Variation ..	No Change	No Change	No Change	+1	—5	+10	+3	+9 4%

MEDICO-LEGAL SECTION, HOSPITALS ADMISSION DEPOT, ETC.

Report of the Government Medical Officer for Sydney for the Year ending 31st December, 1958

STAFF

Medical Staff: The Government Medical Officer, C. E. Percy, M.B., Ch.M.; Two Assistant Government Medical Officers; Three Medical Officers.

Hospital Admission Depot: The Officer in Charge; The Assistant Officer; The Night Officer; The Relieving Night Officer; Escort Attendants (from Lidcombe State Hospital).

ACTIVITIES

ADMISSIONS TO HOSPITALS AND HOMES

- (i) A day and night service for the arranging of admissions to metropolitan hospitals.
- (ii) The arranging of admissions to State Hospitals and Homes.
- (iii) The arranging of admissions to Convalescent Homes.
- (iv) The arranging of admissions of country patients to metropolitan and base hospitals.
- (v) The arranging of ambulance transport.

MEDICAL EXAMINATIONS

Medical examinations for various Government Departments, including visits to various hospitals and the homes of persons too ill to attend for examination.

The medical examination of police recruits, including probationary constables, police cadets and women police, the periodical examination of police cadets and the examination of probationary constables for confirmation of appointment after twelve months' service.

The medical examination of members of the police force at the daily sick parade at Police Headquarters, including supervision of those on sick leave and the determination of fitness for promotion. Matters relating to the general health and fitness of the Police Force are also dealt with, and the treatment and the accounts for medical attention in connection with injuries sustained while on duty are supervised.

MEDICO-LEGAL WORK

The performance of autopsies for the City Coroner. When necessary country centres are visited in connection with homicide matters.

The examination of victims of various types of criminal assaults, and of persons charged in connection with such matters.

The giving of evidence in various courts in connection with examinations made for the City Coroner, and the Police.

OTHER SERVICES

Vaccinations against Small Pox for members of the Public and members of the Police Force, and the issue of International Certificates of Vaccination.

The taking of throat swabbings for children being admitted to various Homes.

APPENDIX I

Statistics	Year ending 31st December, 1957	Year ending 31st December, 1958
Admissions to Hospitals and Homes		
Metropolitan Hospitals	1,914	2,326
State Hospitals and Homes, Chronic Hospitals	3,814	3,799
Convalescent Homes	827	795
Ambulance Removals	8,779	9,447
Medical Examinations for various Government Departments	2,460	2,731
Medical Examinations for the Police Department—		
Police Recruits—First Examinations	1,285	1,292
Police Recruits—Re-examinations	510	743
Probationary Constables—		
Confirmation of Appointment	273	412
Periodic Examination of Cadets	207	242
Daily average of Police on Sick Report	113	101
Examinations for the City Coroner (including week-ends)	1,916	1,906
Examinations of Criminal Assault Cases	158	155
Vaccinations and International Certificates—		
Vaccinations	4,325	4,435
International Certificates	5,148	5,607
Throat Swabbings	563	481

APPENDIX II

Comments

During the year there was an increase in the total number of hospital admissions dealt with, but the figures for State Hospitals and other chronic hospitals are in a transition state owing to changes which have occurred. The yard section of Liverpool Hospital was closed during the year and this left Lidcombe State Hospital as the main admission centre for yard patients and chronically ill males. Difficulty is still experienced in admitting female patients to chronic hospitals, but a little additional assistance for males and females is now being obtained from Garrawarra, Lottie Stewart Hospital, the Home of Peace Hospitals and St. Catherine's Villa. The Almoner has again given valuable service in arranging accommodation in various private institutions for those on the waiting list.

The medical work showed an increase over the previous year's figures, but the organising of this work has been difficult at times owing to limited space and staff changes. Two new medical officers were appointed to the staff to replace one who retired and one who was transferred to another position in the Department.

During the year members of the N.S.W. Police Force were vaccinated against Influenza and were given the first two of a course of injections against Poliomyelitis. This work was carried out with the assistance of facilities provided by the Director of the Poliomyelitis Campaign.

Report of the Government Medical Officer, Newcastle, for the year ended 31st December, 1958

STAFF

Government Medical Officer, P. A. Rundle, M.R.A.C.P.

MEDICAL WORK

(1) Examination of persons for appointment to and fitness to continue in the Public Service for State Government Departments and for various allied bodies ..	259
(2) Examinations of returned soldier applicants for travelling concessions, etc. ..	113
(3) Attendance at Admission Centre, Newcastle in connection with the examination and certification of insane patients	199
(4) The G.M.O. is a medical referee and member of the local Medical Board for the Workers' Compensation Commission	48

MEDICO-LEGAL WORK

(1) The performance of autopsies at the request of the District Coroner in cases of homicide, suicide and violent and uncertified deaths	138
(2) The examinations of persons at the request of the Police Department in cases of rape, assault, etc.	18
(3) Attendance at various courts and giving evidence in connection with any of the above cases. .. .. .	..

HEALTH EDUCATION AND PUBLIC RELATIONS

Annual Report, 1958—Publicity Branch

The Publicity Branch was actively engaged during the year in many public health projects, using all available publicity and advertising media to their fullest extent, bearing in mind the resources and finance available to it.

In 1957-1958, the sum of £12,000 was made available for publicity, whilst in 1958-1959 this figure was increased to £13,500. These amounts are considerably less than that provided in some previous years.

However, so that these amounts may be seen in their true perspective it is pointed out that unlike some of the other States, all salaries, travelling and maintenance expenses are met from the Central Administration vote of the Department. In addition to that, most of the printing done for the Publicity Branch is carried out free of charge by the Government Printing Office.

The main media of publicity used during the year consisted of:—

Press — very little paid publicity was used in the press during the year, with the exception of advertising relating to the district T.B. surveys. However, all metropolitan, suburban, and country papers were supplied weekly with three press articles and every opportunity was taken to provide the press with editorial matter of a topical interest.

Radio — All radio stations were supplied with two articles each week for broadcasting, and as the opportunities presented themselves, Departmental staff gave broadcasts on a wide variety of health subjects.

Television — The high cost of advertising on television puts this medium beyond the reach of the Department. However many Departmental Officers appeared in telecasts, and arrangements were made during the year for a monthly series of programmes to be provided over ABN (Channel 2).

Posters, Leaflets, booklets, etc.—The year's activities resulted in a wide distribution of printed material through local Councils, Schools, Baby Health Centres, Social and service groups, and industrial and commercial organizations.

During the year 115,016 books, 382,067 pamphlets, and 56,204 posters were distributed in this fashion. These figures do not include bulk despatches from the Government Printing Office.

Outdoor Advertising — A fairly wide use was made throughout the year of outdoor advertising on railway stations, in suburban railway carriages, and on the exterior of trams, buses, and ferries. The material displayed related to such subjects as tuberculosis, poliomyelitis, cleanliness, and first aid measures.

Films — The film screening and lending services of the Branch were used to an increasing extent throughout the year. The Branch's mobile film unit provided 186 screenings to various groups (including country schools and social organizations), the total audience being 18,032.

In addition 2,083 loans were made to schools, social groups, hospitals, etc. These films were screened to 77,684 people.

Several new films were purchased during the year from the U.K. and the U.S.A.

One increasingly important service that the Branch is providing in its film screenings is the loan of its films to the teaching hospitals. Here they are used extensively in the training of nurses.

Exhibitions — The main exhibition presented by the Branch during the year was at the Health Week Exhibition in the Sydney Town Hall. The Health Week theme for 1958 was "Safety" (on the roads, in the home, in industry, and on holidays).

The Departmental display covered "Home Safety" and presented the danger points, and hazardous situations in a typical kitchen and bathroom.

Voluntary Organizations — The Branch regards voluntary organizations as an excellent medium of publicity and public relations, and has taken every effort to establish good relations with these bodies.

One organization in particular that the Branch works closely with is the N.S.W. Association for Mental Health. This Association has as one of its objectives the development of an informed and tolerant attitude towards mental illness, and as such, its work bears very closely with the Department's plans in this matter.

The Branch is closely associated with this organization in its publicity and educational programme.

Two Health Campaigns—The two main health campaigns in which the Publicity Branch co-operated closely during the year were the compulsory chest X-ray surveys and the poliomyelitis vaccination campaign.

Each campaign had reached a difficult stage, due mainly in both cases to a general feeling of complacency about the diseases. The T.B. surveys had been in existence for several years, the incidence of T.B. had fallen, whilst with poliomyelitis, the emphasis on the requirements for vaccination had shifted to the pre-school, and the age 15-40 years groups.

With poliomyelitis also there had been a marked decline in the incidence of the disease.

This attitude of complacency is indeed a difficult one to disturb and it is obvious that in 1959, determined action will be needed to bring about a satisfactory proportion of people in the eligible group being X-rayed and vaccinated.

C. Nutrition

REPORT ON THE ACTIVITIES OF THE NUTRITION SECTION FOR THE YEAR ENDED 31st DECEMBER, 1958

STAFF

Two Dietitians, one Secretary to State Nutrition Committee.

ACTIVITIES DURING THE YEAR

PRESS ARTICLES, TAPE RECORDINGS, ETC.

Regular weekly articles and radio scripts (200-400 words) were prepared for metropolitan and country newspapers and radio stations. These comprise two newspaper articles and one radio script each week.

Broadcast scripts for a weekly bulletin on fruit and vegetable prices were prepared for a City Broadcasting Station in its Women's programme.

Questions and answers were supplied for the Catholic Weekly's nutrition "Question Box".

A guide to normal nutrition was written for a British Medical Association's supplement to the Australian Women's Weekly, entitled "Health".

A special article was written for the 1958 edition of "Family Health". Material was prepared for a section devoted to "Nutrition" and "Diet" in the School Medical Service handbook to health for student teachers and in the departmental booklet "Health in Old Age".

Four tape recordings were made for metropolitan radio stations to comment on matters of topical interest throughout the year.

PUBLICATIONS

Publications were revised when necessary for reprinting. The 48 page booklet "Food and Nutrition" was given an extensive revision and the booklet "How shall I Feed Him" and the pamphlet "Salad Suggestions" were completely re-written.

Minor revisions were made of the leaflets "Sumptuous Sandwiches", "Hints for Economy in Meal Planning", "Diet for the Overweight" and the three sheets of prenatal diet instructions.

A new 15 page booklet entitled "Wise Eating for the Elderly" was prepared and published in time for Health Week.

A new poster entitled "Check Your Breakfast" was brought out; and the old "Essential Foods" poster was revised with different food groupings and new photographic work. It was renamed "Foods for Health".

LECTURES AND TALKS

Two courses of 6 lectures on food and nutrition and two sets of 4 practical cookery classes were given to the junior groups of trainee Assistants-in-Nursing at Lidcombe State Hospital.

Shorter courses in special diet planning and preparation were also given to each of the two senior groups.

Three series of six lectures on food and nutrition were given to trainees at the Karitane Mothercraft Home and Training Centre.

Two series of 10 lectures were given to students at the Training College of the Kindergarten Union, Waverley. (An extra series was given in 1958 because it was desired to introduce Nutrition earlier in the Kindergarten Training Course, *i.e.*, to second instead of third year students.)

A course of ten lectures was also given to students at the Sydney Day Nursery and Nursery Schools Association Training College. A series of 4 lectures was given to a Voluntary Aid Detachment at Bondi and another series of 7 lectures to the Mitchell Detachment in the Garrison Drill Hall.

Talks or lectures were prepared and given to the Gordon Methodist Ladies Guild, the Carringbah Mothers' Club, school girls at Ascham on "Dietetics as a Career", a meeting of the National Council of Women and to third year students in Food and Nutrition at East Sydney Technical College.

A lecture on principles of good nutrition with special emphasis on the adolescent's food needs was given as part of an instruction fortnight for the supervisors of the Barnardo Homes.

A lecture on the "Nutritive Value of Modern Processed Foods" was prepared and given with roneod notes as part of a Refresher Course for Baby Health Centre Sisters.

Two lectures on "Food Facts and Fallacies" were given to elderly people at a display of handwork organised by the Old Peoples Welfare Council.

INQUIRIES

Numerous inquiries regarding normal nutrition, food values, costs and methods of cookery were dealt with by telephone, letter and personal interview. Most of these came from ordinary members of the public but a good many were from journalists, social workers, those concerned with the manufacture, sale or promotion of foods and officers of other government departments.

The framing of a suitable reply to a letter designed by a "Sun" feature writer to expose weaknesses in the policy of milk pasteurisation involved considerable research into early experimentation and a restatement of the case for pasteurisation.

The Police Officer in charge of the Police Training Centre was given help with the planning of dietaries for under and overweight police cadets.

Detailed individual therapeutic diets were supplied to those enquirers who were able to obtain some authority for them from their physicians. Unfortunately many requests for assistance with the planning of such diets could not be acceded to for want of this authority.

INSTITUTIONS

Plans drawn up by the Government Architect for a new main kitchen, store rooms, etc., at Hawkesbury Agricultural College were given consideration and comment was made on them.

A visit was made to Broughton Hall at the request of the Inspector General of Mental Hospitals to investigate and report on its food service.

Callan Park was visited to investigate and report on the need for and practicability of setting up a Diet Kitchen there.

A new ration scale was drawn up for inmates of the Lidcombe State Hospital.

On the request of the Child Welfare Department the adequacy of the children's meals at "May Villa Home" for Sub-Normal children was investigated and assistance given with menu planning.

Menus were prepared and general suggestions made for the improvement in the variety and food value of children's meals at Stewart House, Curl Curl, Wahroonga School for Blind Children and the Marist Brothers Juniorate, Mittagong.

Some "Notes on the Food Requirements of Elderly People" were prepared for distribution to Rest Homes about which complaints have been received by the Private Hospitals Section.

HEALTH WEEK DISPLAY

For Health Week in the Sydney Town Hall an exhibit "Wise Eating for the Elderly" was planned in co-operation with the Australian Gas Light Company. It was attended daily by a Dietitian.

PRENATAL CLINICS

Following the staff shortage of 1957 no prenatal clinics were attended until May 9th from which date Hurstville was attended regularly by a Dietitian. Weekly attendance at Parramatta prenatal clinic was also resumed from July, 16th. The total number of patients seen in prenatal clinics during 1958 was 679.

STUDENT DIETITIAN

Help was given during the month of October with the training of the single Dietetic student at Royal North Shore Hospital. She was given experience in various facets of the Nutrition Section's work under supervision and a number of field trips were organised for her benefit.

N.S.W. STATE NUTRITION COMMITTEE

The executive and secretarial work of this body was carried out.

N.S.W. INSTITUTE OF DIETITIANS

The executive and secretarial work of this committee was done.

D. Division of Maternal and Baby Welfare.

ANNUAL REPORT, 1958

The Report is set out in three sections:—

Part I — Maternal Welfare.

Part II — Infant Welfare.

Part III — Pre-school Health Service.

The Head Office Staff is as follows:—

Director: Grace J. Browne, M.B.E., M.B., Ch.M., F.R.C.O.G.

Deputy Director: Eluned M. Puleston-Jones, M.R.C.S., L.R.C.P.

Medical Officers (Seven), Nurse Inspector, Deputy Nurse Inspector, Assistant Nurse Inspector, Clerical Staff, (Three).

Part I — Maternal Welfare

1. PRENATAL CLINICS

The Prenatal Clinics are conducted in close liaison with the Public Obstetric Hospital and this aspect is regarded as one of the most essential Public Health Medical Services.

By meticulous antenatal care many complications of childbirth can be eliminated, and the hazards of others reduced to a minimum.

One example is the control of the complication of pregnancy known as pre-eclamptic toxæmia, which is not only important to the life and health of the mother, but is life saving for the baby.

Medical supervision is given by the Medical Staff of the Division and Departmental Dietitians attend some Clinics and give advice on introduction and budgeting.

The Prenatal Clinics are located and maintained at suburbs distant from the major Metropolitan Obstetric Hospitals.

The value of these decentralised Prenatal Clinics is inestimable as many mothers, frequently accompanied by very young children, would be required to travel long distances to the Hospital in which they were to be confined.

During 1958 these services were conducted at the following Baby Health Centres:—Campsie, Dee Why, Hornsby, Hurstville, Liverpool, Manly, Mascot, Narrabeen and Parramatta. The Prenatal Clinic at Merrylands was transferred to the Granville Baby Health Centre after the opening of new premises in April, 1958.

The Prenatal Clinic at Sutherland was closed in October, 1958 when the Maternity Unit at the Sutherland Hospital was opened.

ATTENDANCES AT PRENATAL CLINICS — 1958

Visits	Primiparae		Multiparae		Postnatal	Total Visits	No. of Sessions
	First	Sub-sequent	First	Sub-sequent			
Campsie	13	113	62	541	1	730	51
Dee Why	35	359	149	995	6	1,444	51
Granville (April) Merrylands ..	29	148	94	673	3	947	52
Hornsby	8	26	29	255	13	331	52
Hurstville	26	178	150	1,434	54	1,842	49
Liverpool	67	426	240	1,271	3	2,006	56
Manly	48	473	160	1,071	19	1,771	47
Mascot	20	74	32	219	..	445	49
Narrabeen	36	278	95	586	22	1,017	50
Parramatta	115	659	308	2,214	3	3,299	104
Sutherland	34	271	96	859	83	1,343	60
(Closed—October)							
Total	431	3,005	1,415	10,118	207	15,175	621

2. THE SPECIAL MEDICAL COMMITTEE INVESTIGATING MATERNAL MORTALITY

The Special Medical Committee Investigating Maternal Mortality held eleven meetings during 1958.

The members of Committee were as follows:—

The Director-General of Public Health, Dr. H. G. Wallace; Professor B. T. Mayes; Emeritus Professor F. J. Browne; Dr. J. N. Chesterman, representative of the Women's Hospital, Crown Street; Dr. T. H. Small and later Dr. K. J. Howell, representatives of the Royal Hospital for Women; Dr. E. A. Tivey, representative of the New South Wales Branch of the British Medical Association; the "alternate" representatives were Dr. R. B. C. Stevenson, Dr. Ida B. Saunders and Dr. Elliot-Smith respectively; and the Director of Maternal and Baby Welfare Dr. Grace J. Browne as the Medical Secretary.

The case histories of maternal deaths presented to the Committee at its deliberations are prepared by the Medical Officers of the Division.

The activities of the Committee during the year included consideration of the following problems arising out of the study of case histories of maternal deaths:—

- (a) The high cost to the mother of antenatal medical supervision where this exceeds the basic routine visits, as is required with many complications arising during pregnancy. The cost of in-patient care in particular is a severe drain on the financial resources of the patient. Inquiries are being made to discover some means of reducing these costs.
- (b) The lack of consultant facilities in areas outside Sydney was obvious from the study of deaths from these areas.

The New South Wales Branch of the British Medical Association was requested to approve of Dr. A. J. Murray and Dr. R. H. Macdonald conferring with a sub-committee on this question.

As a result of these deliberations, the following recommendations were made:—

- (i) Establishment of a “near Sydney” free consultant service and determining a suitable fee for consultations, transport, etc.
- (ii) Establishment of a free consultant service for the remainder of the State, and fees, transport, etc.
- (c) The lack of comparability in records of still births, live births and maternal deaths between hospitals, from State to State in Australia, and internationally; also the restriction of classification of certain diseases and causes of death, arising during pregnancy.

Recommendations were made through the appropriate channels to the Commonwealth concerning alteration in the international classification of maternal deaths, still births, and live births.

3. FREE CONSULTANT SERVICES

The free consultant service (for mothers unable to afford the additional fees) in the Metropolitan Area, established in 1938, continued to be available. Diminishing use is made of this service as obstetric facilities are now widely distributed throughout the Metropolitan Area.

On 1st September, 1958, a “near Sydney” free consultant service (for mothers unable to pay the additional fee) for an area fifty miles outside Sydney, was established.

The members of the Consultant Panel already approved for the Metropolitan Area were approached concerning this “near Sydney” Service, and the majority consented to take part. The consultant fees, mileage rates and rates for time away from practice, were also accepted.

In September the Southern District Association of the New South Wales Branch of the British Medical Association requested that two qualified consultants, recently taking up practice in Wollongong, be added to the Consultant Panel.

Further discussions were then held with Drs. Murray and Macdonald, and recommendations were made for the inclusion of all suitably qualified consultants, practising outside Sydney, in a Consultant Service, and the extension of the “near Sydney” service to the whole of the State of New South Wales.

4. MOBILE BLOOD TRANSFUSION SERVICE

This mobile service is available day and night to mothers in the Metropolitan Area, and provides for the administration of a blood transfusion at the bedside of any obstetric patient wherever facilities for giving blood are not available, whether in a public or private hospital.

Five Mobile Units operate from the following major Obstetric Hospitals and are in constant readiness to proceed immediately to the patient's bedside:—the Women's Hospital, Crown Street, Royal Prince Alfred Hospital, Royal North Shore Hospital, Royal Hospital for Women, and St. George Hospital.

This service has been available since 1939, and is made possible by the co-operation of these Hospitals and the Red Cross Blood Transfusion Service.

The transfusion is given free to the patient, if unable to pay the additional fee. Each Hospital provides the services of a Resident Medical Officer and Trained Nurse for each Unit. An honorarium is paid to each. Transport and equipment costs are also met by the Department.

Arrangements have been made with twenty-one Hospitals throughout the suburbs for human albumin to be made available on request—this provides an additional safeguard as it enables immediate intravenous therapy to be given pending arrival of the Mobile Blood Transfusion Unit.

During the year five blood transfusions were given.

A booklet entitled “Free Emergency Obstetric Services” is published from time to time and distributed to all medical practitioners in New South Wales indicating the availability of the mobile blood transfusion service, and other free services for mothers.

This booklet sets out the method of obtaining these services without delay and the method of recoupment for payments.

5. IMMUNE RUBELLA SERUM

The Red Cross Blood Transfusion Service has continued to make available supplies of immune rubella serum to medical practitioners for the protection of expectant mothers who have been exposed to rubella infection, and have not previously had this infection.

Shortage of supply has necessitated this serum being reserved for the use of those susceptible mothers, who, in the first sixteen weeks of their pregnancy have come into close contact with persons suffering from the disease.

6. "HEALTHY MOTHERHOOD" PUBLICATION

During 1958, a new edition of the Departmental Booklet "Healthy Motherhood" was produced. This booklet is available without charge to all Public Obstetric Hospitals, and to all Medical Practitioners in New South Wales for free distribution to expectant mothers.

Its chief aim is to raise the standard of antenatal care by encouraging the mother to co-operate with the doctor, hospital and clinic, to follow carefully the instructions given and to attend whenever required for medical supervision.

7. PHYSIOTHERAPY IN PREGNANCY AND THE PUERPERIUM

Physiotherapy is now part of the recognised educational programme for expectant mothers, and continues to play an important role in the well-being of the mothers during pregnancy, the confinement and the puerperium.

This aspect of preventive medicine and health education has been keenly supported by the Department since 1938, when the first teaching sound film on this subject was made. This was later replaced by a film in sound and colour. This is used for teaching students of medicine, physiotherapy and obstetric nursing.

Physiotherapy given under the supervision of qualified physiotherapists during pregnancy is a routine at the Royal Hospital for Women and the Royal North Shore Hospital. Physiotherapy during the puerperium is provided for mothers at most of the Metropolitan obstetric hospitals.

In "Healthy Motherhood" selected exercises are illustrated for the benefit of those mothers who cannot, on account of cost or distance, obtain the services of a trained physiotherapist.

8. CONTROL OF INFECTION

(a) PUERPERAL INFECTION

The incidence of puerperal infection has continued to decrease. A constant watch is kept by this Department to prevent the spread of puerperal sepsis, and so protect mothers from infection during or after confinement.

During 1958, fifty-four cases occurred of puerperal infection. Of these, forty-five were notified in cases where the patient survived, and of the nine fatal cases, only one was notified by the medical practitioners concerned.

Under the Nurses' Registration Act, one hundred and twenty cases of puerperal pyrexia were notified by midwifery nurses during 1958; of these seventy-four were found to be due to abnormal conditions, other than those associated with genital tract infection.

(b) INFECTION OF THE NEWLY BORN

During 1958 staphylococcal infection of the newly born continued to present a major hazard in the care of mothers and their babies in hospitals.

In response to information concerning serious staphylococcal infection obtained from various sources (in many instances from the hospital authorities themselves), the Director made available Medical Officers from the Division to all such hospitals for the purpose of providing assistance and guidance in dealing with special problems.

The Medical Officers proceeded to these hospitals (city or country) to examine all medical and nursing routines and procedures, and to inspect the physical and structural conditions at the hospitals, including facilities for hand washing, sterilising, etc.

At each visit, a conference was held with the local Medical Practitioners to discuss their local problems, and the methods of control advised by the Department.

These contacts have been of great assistance in fostering the co-operation of Obstetric Hospitals with this Department, and have resulted in the solution of many local problems in the control of staphylococcal infection.

Fourth Edition of the Departmental Booklet

A fourth edition of the booklet "Care of the newly born and premature baby" was published with a view to a change in emphasis, *i.e.*, to provide special detailed information for the control of staphylococcal infection in the newly born.

The name of the booklet was changed to "Infection in the Newly Born and the Care of the Premature Baby".

The material was prepared after conferences with a number of authorities directly responsible for the erection and administration of hospitals, as well as obstetricians, paediatricians and pathologists.

This booklet has been widely distributed throughout New South Wales to Medical Practitioners, Obstetric Hospitals, Teaching Schools of medicine and nursing, and to many other authorities on request.

(c) NOTIFICATION OF STAPHYLOCOCCAL DISEASES

Following conferences with the British Medical Association (New South Wales Branch) the Department agreed to make certain staphylococcal diseases notifiable, and these were proclaimed under the Public Health Act as from 19th September, 1958:—

- (1) Staphylococcal Infection in Infants under four weeks.
- (2) Staphylococcal Mastitis.
- (3) Staphylococcal Pneumonia.

(d) GASTRO-ENTERITIS UNDER FOUR WEEKS

This disease is notifiable under the Public Health Act. Whenever the possibility of an epidemic is indicated or where special circumstances occur, inspections are carried out by Medical Officers of the Division.

BIRTH STATISTICS

Live Births and Still Births — The number of live births in New South Wales during 1958, was 80,045, an increase of 589 compared with the previous year.

Still births numbered 1,208, showing a decrease of 74 compared with the previous year.

The total number of births for the year was 81,253.

The live birth rate was 21.67 per 1,000 of the population which is .26 lower than the rate for 1957, which was 21.93.

Details of births for the last three years are shown in Table I hereunder:—

TABLE I — LIVE BIRTHS AND STILL BIRTHS — NEW SOUTH WALES — 1956–1958

Year	Total Births (live and still combined)	Live Births		Still Births	
		Number	Rate per 1,000 of mean population	Number	Rate per 1,000 total births (live and still combined)
METROPOLIS					
1956	37,333	36,750	18.97	583	15.62
1957	39,546	38,962	19.73	584	14.77
1958	40,062	39,540	19.59	522	13.03
REMAINDER OF STATE					
1956	39,654	38,964	24.07	690	17.40
1957	41,192	40,494	24.58	698	16.95
1958	41,191	40,505	24.19	686	16.65
NEW SOUTH WALES					
1956	76,987	75,714	21.29	1,273	16.54
1957	80,738	79,456	21.93	1,282	15.88
1958	81,253	80,045	21.67	1,208	14.87

MATERNAL MORTALITY

Information relating to maternal mortality is shown in Tables II to IV.

Details of deaths from puerperal causes (excluding criminal abortions) are shown for each year since 1956 in Table II.

TABLE II — LIVE BIRTHS AND MATERNAL MORTALITY — NEW SOUTH WALES

Year	Live Births			Deaths from Puerperal Causes (Excluding Criminal Abortions)					
				Number			Rate per 1,000 Live Births		
	Metropolis	Remainder of State	N.S.W.	Metropolis	Remainder of State	N.S.W.	Metropolis	Remainder of State	N.S.W.
1956	36,750	38,964	75,714	17	31	48	0.46	0.80	0.64
1957	38,962	40,494	79,456	20	36	56	0.52	0.89	0.71
1958	39,540	40,505	80,045	25	24	49	0.63	0.60	0.61

During 1958 the number of deaths from puerperal causes (excluding criminal abortion) in New South Wales was 49, which represents a mortality rate of 0.61 women per 1,000 live births. The rate decreased by 0.10 compared with 1957.

The rate both for all causes (0.62 per 1,000 live births), and all causes excluding criminal abortion (0.60) in the "Remainder of State" is the lowest ever recorded, and the rates are slightly less than the corresponding rates for the Metropolitan Area. This is most probably due to the improvement in the quality of the obstetrics practiced in country areas, and the greater stress laid on adequate prenatal care including blood examination and typing.

Three women died in New South Wales from criminal abortions in 1958 as compared with eight in 1957. This was the lowest number on record.

Deaths from criminal abortion at ages 15 to 44 years were equal to 0.83 per cent. of total deaths of females at these ages in 1957. The percentage declined to 0.33 in 1958. The proportion per cent. of all maternal deaths (including criminal abortion) fell from 6.63 in 1957 to 5.71 in 1958.

The causes of maternal deaths are shown in Table IV. This table shows that during 1957 and 1958 a diminution from 0.16 to 0.11 per 1,000 live births occurred in the rate of deaths due to toxæmias. The rate for deaths from delivery complicated by hæmorrhage was the same as that from toxæmias, *i.e.*, 0.11 for New South Wales, and for both these causes the rates were slightly lower in the Metropolitan Area than in the remainder of the State.

TABLE III — DEATHS FROM CRIMINAL ABORTION AND TOTAL PUERPERAL DEATHS, NEW SOUTH WALES

Deaths from Criminal Abortion					Total Puerperal Deaths (Including Criminal Abortion)			
Year	All ages		Ages 15 to 44 years		All ages		Ages 15 to 44 years	
	No.	Proportion per cent. of female deaths at all ages	No.	Proportion per cent. of female deaths at ages 15 to 44 years	No.	Proportion per cent. of female deaths at all ages	No.	Proportion per cent. of female deaths at ages 15 to 44 years
METROPOLIS								
1956	6	·06	6	1·13	23	·25	23	4·34
1957	6	·07	6	1·11	26	·29	26	4·82
1958	2	·02	2	·39	27	·31	27	5·30
REMAINDER OF STATE								
1956	4	·07	4	·95	35	·62	34	8·11
1957	2	·04	2	·47	38	·68	38	8·90
1958	1	·02	1	·25	25	·47	25	6·23
NEW SOUTH WALES								
1956	10	·07	10	1·05	58	·39	57	6·01
1957	8	·05	8	·83	64	·44	64	6·63
1958	3	·02	3	·33	52	·37	52	5·71

TABLE IV—DEATHS DUE TO PUERPERAL CAUSES, NEW SOUTH WALES—NUMBER AND RATE, *1955 TO 1958

Cause of Death	Metropolis						Remainder of State						New South Wales					
	1955			1956			1957			1958			1955			1956		
	No.		Rate	No.		Rate	No.		Rate	No.		Rate	No.		Rate	No.		Rate
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Toxaemias of Pregnancy	1	.03	2	.05	3	.08	4	.10	6	.16	7	.18	9	.22	5	.13	7	.09
Ectopic Pregnancy	1	.03	2	.05	1	.03	1	.03	4	.10	2	.05	..	..	..	..	5	.07
Placenta Praevia and other Haem. of Pregnancy .. ..	..	..	..	..	..	..	..	..	..	..	1	.03	1	.02	..	..	..	..
Other Complications of Pregnancy .. ..	..	..	1	.03	3	.08	2	.05	..	..	1	.02	2	.06	4	.10	2	..
Abortion excluding Criminal	2	.06	1	.03	4	.10	6	.15	4	.10	..	..	1	.02	1	.02	1	.08
Delivery complicated by Haemorrhage.. ..	3	.08	2	.05	4	.10	4	.10	1	.03	6	.15	8	.20	5	.13	4	.05
Delivery with other Specified Complications	3	.08	2	.06	2	.05	6	.14	5	.12	7	.18	8	.20	3	.08	8	.11
Puerperal Urinary Infection without other Sepsis .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Sepsis of Childbirth and the Puerperium	2	.06	3	.08	..	..	..	..	..	..	3	.08	..	..	1	.02	2	.03
Puerperal Phlebitis and Thrombosis	1	.03	..	..	..	..	..	..	1	.03	..	..	1	.02	1	.02	2	.03
Puerperal Pulmonary Embolism	3	.08	1	.03	1	.03	1	.03	3	.08	1	.03	4	.10	2	.05	6	.08
Other and Unspecified complications of the Puerperium	3	.08	3	.08	2	.05	1	.03	1	.03	3	.08	2	.05	2	.05	4	.05
Total excluding Criminal Abortion	19	.53	17	.46	20	.52	25	.63	25	.65	31	.80	36	.89	24	.60	44	.59
Criminal Abortion	4	.11	6	.17	6	.15	2	.05	7	.18	4	.10	2	.05	1	.02	11	.15
Total	23	.64	23	.63	26	.67	27	.68	32	.83	35	.90	38	.94	25	.62	55	.74

* The number of deaths per 1,000 live births.

Part II—Infant Welfare

BABY HEALTH CENTRES

Baby Health Centres are now an established feature of the community.

Through the Baby Health Centres, it is possible to offer the Mothers of this State an avenue whereby they can receive advice and encouragement in the care of their babies, and of themselves.

They are assisted with the many problems which beset them in motherhood, and are thus given a sense of security.

This service is readily available free of cost, and covers all mothers, irrespective of social or economic status.

From small beginnings there have been, over the years, a great increase in the number of Baby Health Centres. At the end of this year there were 350 Centres. Although this represents a splendid effort, the increase is not commensurate with the growth of this State, either in population or the opening up of new areas.

Difficulties in extending these services include lack of sufficient money for subsidising building and trained personnel to staff new Centres.

It is the intention to attack both these problems, and by the end of 1959 it is hoped a different position will exist.

With the assistance of the Department of Public Health, Local Government Authorities and Country Women's Associations are able to build and equip Centres.

The first action is for the Department to determine whether the Centre is warranted, and whether staff and finance are available.

The local authority then selects a suitable site, and if this is approved by the Department it is purchased and paid for by the local authority.

An Agreement under Seal is then entered into by both parties whereby the Department pays for 75 per cent. of the cost of building and equipment, and agrees to supply and pay the cost of staffing the Centre. The local authority on its part pays 25 per cent. of the cost of building and equipment and agrees to maintain the Centre.

Plans for buildings are mutually agreed upon. The Department, although insisting on certain sizes and distribution of rooms, allows the local body generous scope for self expression in the type of Centre to be constructed.

Thus there are contemporary buildings and cottage-style Centres, the net result is that they are not stereo-typed and each Baby Health Centre expresses the community it serves.

Of the 350 Baby Health Centres in New South Wales, 108 are in the Metropolitan Area of Sydney, 13 in the Newcastle District and 229 in Country Districts.

Three new Centres were opened in 1958 in buildings constructed for the purpose—Yagoona, Ryde, Pendle Hill.

Three new services were commenced in buildings already constructed, but adapted for Baby Health Centre purposes—Kurnell, Balranald, Coonamble.

Because of the problem of our Aboriginal population, and their lack of knowledge and training in child care, every effort is made to assist these people.

A Baby Health Centre service was commenced in three Aboriginal Stations in 1958—Cowra, Burnt Bridge, Bellbrook.

There is still a great deal of work required in order to give our coloured people the help they badly need. It is expected in 1959 that these services will be increased wherever possible.

A further five new buildings were erected to replace substandard premises at Lithgow, Wollongong, Lockhart, Waratah, Gulgong.

Two Centres were closed—Littleton and Cargo, the former because of its proximity to Lithgow, and the latter because of small attendances.

BABY HEALTH CENTRE STAFF

All staff employed in Baby Health Centres are registered nurses trained in mothercraft.

During 1958 approximately 200 officers were in the employ of the Department, acting either as full-time or part-time Officers.

The problem of managing this staff, arranging leave and relief and the many aspects of their work are controlled by the Nurse Inspectors Staff.

The Baby Health Centres hold an unique position in the community, being representative of Central and Local Government and Voluntary Bodies, and giving mothers an invaluable service.

ATTENDANCE AT BABY HEALTH CENTRES

The attendances for the year 1958 were as follows:—

	Metropolitan	Newcastle	Country	Total
Individual attendances	58,416	3,843	44,574	106,833
Total attendances	606,739	37,842	404,266	1,048,847

	Metropolitan	Newcastle	Country	Total
Attendances—				
Children under 1 year	551,739	32,489	356,177	940,405
Children under 2 years	44,672	3,426	34,221	82,319
Children over 2 years	3,194	1,130	8,566	12,890
Expectant Mothers	1,956	337	1,277	3,570
Miscellaneous	5,178	460	4,025	9,663
Visits—				
1st Visits to homes of babies	4,710	290	13,981	18,981
Subsequent visits to homes of babies	4,604	466	4,183	9,253
Total Visits	9,314	756	18,164	28,234
Work at Centre—				
New Cases	28,927	1,886	21,634	52,447
New Australian mothers	16,473	741	5,264	22,478
Test Meals	12,927	968	7,543	21,438
Total Attendance	606,739	37,842	404,266	1,048,847
No. of Baby Health Centres as at 31st December, 1958	108	13	229	350

STUDENT OBSERVATION AT THE BABY HEALTH CENTRES

Fifth Year Medical Students through the Institute of Child Health are given opportunity to observe the feeding and management of well babies at the Baby Health Centres in the Metropolitan Area during their term of paediatric study. The students attend for one afternoon in groups of three or four.

“Tresillian” Training Schools (Royal Society for the Welfare of Mothers and Babies).—Students from the three “Tresillian” Training Schools of the Royal Society for the Welfare of Mothers and Babies work under supervision at selected Baby Health Centres during their training.

Pre-school Students from the Training Colleges of the Kindergarten Union, the Sydney Day Nursery and Nursery Schools Association, and the Teachers Training College, are allocated in groups to the Baby Health Centres for observation of the feeding and management of well babies. Each student is allocated for half a day during her training.

Social Study Students from the Department of Social Study, University of Sydney, attended the Baby Health Centres and these included Asian Students training under the Colombo Plan.

Other Visiting Students are as follows:—

Balmain Hospital—pupil nurses.

Asian Nurses from the New South Wales College of Nursing.

Home Science Students from the East Sydney Technical College.

South Wagga High School pupils.

VISITING PREMATURE BABIES IN THEIR HOMES

A visiting service has been established in co-operation with seven of the Metropolitan Obstetric Hospitals. The Hospital concerned notifies this Division on a special form of the discharge of each premature baby and arrangements are then made for a Sister to visit the baby in the home. Notes are set out on the forms by the Sister and forwarded to the Hospital concerned for completion of their records.

Prematurity is one of the major problems in the reduction of infant mortality; approximately 58 per cent. of the infants dying under one week in 1958 were premature babies. It will readily be understood how invaluable is the home visiting service thus established and opportunity to extend this service is taken whenever possible.

BROADCASTS BY BABY HEALTH CENTRE SISTERS

During the year regular broadcasts were given weekly by the Sisters at Goulburn, Grafton, Wagga and Wollongong.

INFANT FEEDING NOTES

These are a summary of the basic principles and methods of infant feeding according to the present teaching in the Training Schools of the Royal Society for the Welfare of Mothers and Babies and the Royal Alexandra Hospital for Children. They are supplied to each Sister for her guidance,

and are revised from time to time by the Medical Staff after consultation with the Honorary Medical Director of the Mothercraft Training Schools, the Professor of Paediatrics, University of Sydney, and the Medical Superintendent of the Royal Alexandra Hospital for Children.

In addition to the Baby Health Centre Sisters, these Notes are distributed to selected groups and individuals. A regular mailing list is maintained so that those using the Feeding Notes will have up to date revision of information.

The selected groups include:—

- (1) The Royal Society for the Welfare of Mothers and Babies, the Honorary Medical Director, the Honorary Medical Staff, the Matrons and Tutor Sisters.
- (2) Public Obstetric Hospitals: Superintendents, Registrars and Honorary Paediatricians.
- (3) The Royal Alexandra Hospital for Children: the Medical Superintendent.
- (4) The Institute of Child Health.
- (5) The Far West Children's Health Scheme.
- (6) The Sydney Day Nursery and Nursery Schools Association.
- (7) The New South Wales Bush Nursing Association.

WELL BABY CLINICS AT BABY HEALTH CENTRES

The Medical Staff conducts Well Baby Clinics for two areas at the Balmain and Hornsby Baby Health Centres. Advice is given to mothers on nutrition, feeding, behaviour problems, etc.

All Baby Health Centre Sisters in the area are encouraged to refer cases to the Clinic or contact the Medical Officer for advice on problems arising in their work.

Attendances at these Clinics decreased following the introduction of the Medical Benefits Scheme, but valuable service is rendered in both the above districts.

There were 103 sessions conducted during the year.

TRANSLATIONS FOR NEW AUSTRALIAN MOTHERS

Language difficulties are experienced by many New Australians visiting Baby Health Centres and Prenatal Clinics. Because this prevents the mothers obtaining the benefit of expert advice, a number of relevant questions concerning babies and expectant mothers, and three special diet lists, were translated. These are available at Baby Health Centres and Prenatal Clinics and are made available on request to Medical Practitioners and Obstetric Hospitals.

The three translations are as follows:—

- (1) For mothers with young babies—

Words in common use: reference to procedure re immunisation, and fourteen questions asked by Medical Practitioners or Nurses when interviewing Mothers with their Babies.

- (2) Eleven questions suitable for Medical Practitioners and Nurses when interviewing expectant Mothers.
- (3) Three diet lists for expectant Mothers; normal diet during pregnancy, low calorie diet and low salt diet.

These translations are available in Czechoslovakian, Dutch, Estonian, French, German, Greek, Hungarian, Italian, Latvian, Lebanese, Lithuanian, Maltese, Polish, Russian, Rumanian, Ukranian and Yugoslavic.

FOOD RELIEF ARRANGEMENTS

The Department of Child Welfare and Social Welfare, is the agent for the provision of Food Relief by the Government. To ensure that infants and young children will receive adequate and appropriate food, this Department accepts the Food Schedule set out in detail by the Department of Public Health.

To ensure that the infant is receiving the supervision available at the Centres, the mother must attend the local Baby Health Centre and obtain a Food Relief Order signed by the Sister.

LIAISON WITH THE CHILD WELFARE DEPARTMENT

The names, addresses and telephone numbers of the local Child Welfare Officers are in the Guidance Notes at the Baby Health Centres. The Sisters are advised to seek early contact on social and economic problems or unsatisfactory family situations.

SERVICE FOR CHILDREN BETWEEN 2-5 YEARS OF AGE

The attendance of mothers with children from 2-5 years has always been encouraged.

The Sisters at the Baby Health Centres give advice to the parents of preschool children on simple dietetics and elementary hygiene as well as assessing the physical and emotional development of the child. All problems of management and behaviour are discussed, and the mother is referred for medical advice if indicated.

It has not been possible to always offer service to the 2-5 age group in the Metropolitan Area because of shortage of staff, but in the country, wherever possible, this service is encouraged and maintained.

INFANT MORTALITY

In 1958, 1,704 infants died during the first year of life, equivalent to an infantile mortality rate of 21.29 per 1,000 live births, which is the lowest on record for this State. The rate for 1957 was 22.70.

Of the 1,704 children under one year of age who died during 1958, 792 lived in the Metropolitan Area, and 912 in the Remainder of the State, giving an infantile mortality rate of 20.03 for the Metropolitan Area and 22.52 for the Remainder of the State. These rates compared with 1957 show a fall, the 1957 rates being 20.40 for the Metropolitan Area, and 24.92 for the Remainder of the State.

From Table VI it will be seen that there has been a significant decrease in the number of infant deaths under one week, *i.e.*, from 1,136 in 1957 to 1,055 in 1958, possibly due to improved standards of prenatal care. Decreases also occurred at ages one month and under three months, and three months and under six months. Slight increases were recorded at ages one week and under one month, and six months and under one year.

Death rates for the seventeen major classes into which causes of death are classified in the International Classification are shown in Table VII for the years 1956 to 1958.

TABLE V — INFANTILE MORTALITY, NEW SOUTH WALES

Period							Rate*	Year	Rate*
1936-1940 ..	..	..	..	..	..	..	41.18	1955	24.86
1941-1945 ..	..	..	..	..	..	..	35.95	1956	23.47
1946-1950 ..	..	..	..	..	..	..	28.91	1957	22.70
1951-1955 ..	..	..	..	..	..	..	25.11	1958	21.29

* Number of deaths of children under one year of age (excluding still births) per 1,000 live births.

TABLE VI — INFANT MORTALITY IN AGE GROUPS, NEW SOUTH WALES

Year	Age at Death							
	Under 1 Week	1 Week and under 1 Month	Total under 1 Month	1 month and under 3 Months	Total under 3 Months	3 months and under 6 Months	6 months and under 12 Months	Total under one Year
Number of Deaths								
1955	1,118	170	1,288	149	1,437	182	231	1,850
1956	1,117	168	1,285	150	1,435	175	167	1,777
1957	1,136	166	1,302	152	1,454	168	182	1,804
1958	1,055	170	1,225	136	1,361	149	194	1,704
Rate per 1,000 Live Births								
1955	15.03	2.28	17.31	2.00	19.31	2.45	3.10	24.86
1956	14.75	2.22	16.97	1.98	18.95	2.31	2.21	23.47
1957	14.30	2.09	16.39	1.91	18.30	2.11	2.29	22.70
1958	13.18	2.12	15.30	1.70	17.00	1.86	2.43	21.29

TABLE VI—CAUSES OF DEATH OF CHILDREN UNDER ONE YEAR OF AGE, NEW SOUTH WALES
NUMBER OF DEATHS PER 1000 PER LIVE BIRTHS

Class No.	Cause of Death*	Metropolis			Remainder			New South Wales		
		1956	1957	1958	1956	1957	1958	1956	1957	1958
1	Infective and Parasitic Diseases	·19	·33	·38	·62	·50	·47	·40	·42	·42
2	Neoplasms	·11	..	·08	·10	·10	·05	·11	·05	·06
3	Allergic Endocrine System, Metabolic and Nutritional Diseases	·08	·05	·18	·05	·12	·10	·07	·09	·14
4	Diseases of the Blood and Blood-forming organs .. ..	..	..	·05	·15	..	·05	·08	..	·05
5	Mental Psychoneurotic and Personality Disorders	·14	·15	·18	·18	·07	·10	·16	·11	·14
6	Diseases of the Nervous System and Sense Organs	·41	·33	·20	·59	·65	·47	·50	·49	·34
7	Diseases of the Circulatory System	·03	..	·13	·05	·07	·10	·04	·04	·11
8	Diseases of the Respiratory System	1·90	2·05	1·99	2·57	2·87	2·64	2·25	2·47	2·32
9	Diseases of the Digestive System	·87	·75	·73	·95	·77	1·11	·91	·75	·92
10	Diseases of the Genito-Urinary System	·05	·05	..	·08	·02	·07	·07	·04	·04
11	Deliveries and Complications of Pregnancy, Childbirth and the Puerperium .. ..	..	..	..	..	..	..	..	..	..
12	Diseases of the Skin and Cellular Tissue	·05	·10	·05	·03	·02	·02	·04	·06	·04
13	Diseases of the Bones and Organs of Movement	·11	·08	·03	·10	..	..	·11	·04	·01
14	Congenital Malformations	3·65	4·21	3·97	3·80	3·36	3·41	3·72	3·78	3·69
15	Certain Diseases of Early Infancy	13·22	11·78	11·45	15·48	15·26	12·89	14·38	13·55	12·18
16	Symptoms, Senility and Ill-defined Conditions	·03	·08	·08	·05	·15	·12	·04	·11	·10
17	Accidents, Poisonings and Violence	·49	·44	·53	·69	·96	·92	·59	·70	·73
	Total, All Causes	21·33	20·40	20·03	25·49	24·92	22·52	23·47	22·70	21·29

* 1956 and 1957 deaths are classified according to the Sixth Revision (1948) of the International Classification of Diseases, and 1958 deaths according to the Seventh Revision (1955).

INFANT MORTALITY SURVEY

The infant mortality rate in New South Wales is higher than other states. These rates, however, are not strictly comparable as the definition of live birth varies in each state.

It has been arranged that all deaths in New South Wales registered in 1958 will be examined. Specially devised questionnaires have been circulated to all medical practitioners certifying the death of an infant in private practice in the Metropolitan area and all deaths in the Remainder of State.

Arrangements have been made with all Metropolitan Hospitals for the Medical Officers of the Division to extract the material required for the questionnaire from the records of public patients.

Part III—Pre-school Health Services

During 1958 the pre-school health service was supervised by the Medical Officers of this Division at Pre-school Centres controlled by the following:—

- (1) The Kindergarten Union of New South Wales.
- (2) The Sydney Day Nursery and Nursery Schools Association.
- (3) The Woollahra Council.

The Newtown and the Samuel Cohen Kindergartens were closed during 1958.

NURSERY SCHOOLS AND DAY NURSERIES

Eighty-seven medical sessions were held at 16 Nursery Schools including Bathurst and Katoomba. The total number of children examined were 710 first and 854 subsequent examinations; the number of parents interviewed was 87.

A considerable shift of families with young children has been noted from the areas where the Nursery Schools are located, to the outer suburbs, the Nursery Schools having smaller waiting lists than formerly.

KINDERGARTENS

One hundred and seventy medical sessions were held at 29 Kindergartens, including Mayfield and Wickham in the Newcastle Area.

One thousand and twenty-one parents were interviewed, 1,211 first and 1,117 subsequent examinations were made: Six visits were paid to the Woollahra Municipal Council's Kindergarten, 23 parents being interviewed. 35 first and 40 subsequent examinations were made.

DENTAL HEALTH

A dental health service is provided at certain Kindergartens and Nursery Schools.

Two hundred and eighty-two cases of new dental caries were noted and referred for treatment, while 31 children had previously been referred for treatment which was not carried out. The incidence of dental caries is still markedly higher in the Kindergartens than the Nursery Schools, as these latter children have a regular service from the Dental Hospital; also many of the children at the Nursery Schools are babies and toddlers in a younger age group than the Kindergarten children.

Eight nurseries are provided with suitable fully equipped dental chairs—Erskineville, Marrickville, Northern Suburbs, Paddington, Redfern, Surry Hills, Waverley and Woolloomooloo.

IMMUNISATION

Twenty-eight children examined had not been immunised against diphtheria, 19 of these at Kindergartens and 9 at Nursery Schools. All parents who were interviewed were advised regarding the value of immunisation and the method of arranging for it.

INFECTIOUS DISEASES

The incidence of infectious diseases was much the same as in previous years. Measles and mumps having the highest rates with chicken pox and german measles the next frequently occurring.

NUTRITION

Dietitians from the Department give lectures to students at the Colleges and are available to give advice on request to any of the Day Nurseries, Nursery Schools or Kindergartens on menus, food requirements and preparation, budgeting, etc.

LECTURES

Lectures were given to students at the Training Colleges of the Kindergarten Union, and the Sydney Day Nursery and Nursery Schools Association, by Medical Officers of the Division.

The object of these lectures is to acquaint the students with the procedures for medical examinations, to familiarise them with certain physical abnormalities, and to explain the control of infectious diseases by constant attention to personal hygiene of the children, and routine daily examination of each child on admission.

E. Tuberculosis Division

REPORT OF THE DIRECTOR ON THE ACTIVITIES OF THE TUBERCULOSIS DIVISION DURING THE YEAR ENDED 31ST DECEMBER, 1958

Director: Marshall Andrew, M.B., Ch.M.,

Deputy Director: Keith W. H. Harris, M.B., B.S.

DEATHS AND NOTIFICATIONS

The number of deaths due to tuberculosis in 1958 was 190 compared with 248 for 1957.

The number of new cases of tuberculosis notified during 1958 was 1,399 or 250 less than the number recorded during 1957. With the exception of the "Health Department Mass X-ray Survey" and "Other Sources of Discovery" there was a downward trend in the figures of new notifications.

The following table sets out the form and/or stage of disease of all new cases of tuberculosis notified in New South Wales during 1957 and 1958.

NEW CASES OF TUBERCULOSIS NOTIFIED IN NEW SOUTH WALES, 1957 AND 1958—FORM AND STAGE OF DISEASE

Form and/or Stage of Disease	1957		1958	
	Number	Per Cent. of Total	Number	Per Cent. of Total
Pulmonary—				
Minimal	437	26.50	418	29.88
Moderately Advanced	911	55.25	692	49.46
Far Advanced	144	8.73	134	9.58
Not Stated .. .. .	..	..	1	0.07
Extra-Pulmonary—				
Death Certificate*	44	2.67	52	3.72
	113	6.85	102	7.29
Total	1,649	100.00	1,399	100.00

* Death certificate notifications represent cases which had not been notified prior to death.

There has generally been a decrease in the number of pulmonary cases classified under the headings “ Minimal ”, “ Moderately Advanced ” and “ Far Advanced ” which shows a decrease of 219 or 23 per cent. on the 1957 figures.

Of the “ Far Advanced ” cases more than two-thirds were discovered by “ Private Practitioners ” and “ Hospitals ” who shared approximately 50 per cent. each of these discoveries. As in 1957, almost 50 per cent. of the “ Moderately Advanced ” cases and over 40 per cent. of the “ Minimal ” cases were discovered by mass chest X-ray surveys.

Further details of notifications are set out in Table 1 of the Statistical Appendix.

X-RAY SECTION

The number of X-rays taken by this Division during 1958 was 237,682 or a rise of 20,012 when compared with 1957.

The following is a summary of the work performed by this Section during 1958 compared with 1957:—

MICRO-FILM EXAMINATIONS AND REPORTS—1957 AND 1958

	Number of Films		No. per 100 Micro-films	
	1957	1958	1957	1958
Normal	212,049	231,874	97.41	97.50
Technical Fault	1,413	1,695	0.65	0.71
Probable Abnormalities*	4,220	4,125	1.94	1.79
Total	217,682	237,694	100.0	100.0

* Not all probable abnormalities are re-rayed.

The compulsory mass radiological surveys carried out were all second round surveys, with the exception of Canterbury and Bankstown which were third.

In addition the mass X-ray examinations of mental hospitals in the area covered by this Division has been started; arrangements have been made with the Anti-Tuberculosis Association for a similar survey in its area.

Due to unfavourable press reports of the possible harmful effects of radiation, a marked drop in attendance at the mobile chest X-ray units was noticed, mainly in the Canterbury area and some possible effect in the Bankstown area.

A summary of the results of the mass X-ray surveys during 1958 is set out in Table II of the statistical appendix.

Details of the results of the mass X-ray surveys during 1958 with respect to the Statistical Division, is set out in Table III of the statistical appendix.

Up to 31st December, 1958, nearly 3,718,700 X-rays have been taken during compulsory community wide X-ray surveys by the Anti-Tuberculosis Association of New South Wales, and this Division. From these, over 3,160 new active cases of Tuberculosis have been discovered.

A brief summary of X-rays taken since the commencement of the campaign is set out hereunder:—

NUMBER OF MICRO-FILMS TAKEN FROM COMMENCEMENT OF COMPULSORY COMMUNITY WIDE SURVEYS TO 31ST DECEMBER, 1958

					Department of Public Health	Anti-Tuberculosis Association of N.S.W.	Total
					First Round (a)		
Metropolitan Area	..	..	..	..	179,358	891,560	1,070,918
Newcastle Area (b)	..	..	..	..	.....	131,596	131,596
Wollongong Area (c)	..	..	..	..	62,476	.....	62,476
Other Country Areas	..	..	..	..	351,674 (d)	357,442	709,116 (d)
Total	..	..	..	..	593,508 (d)	1,380,598	1,974,106 (d)
					Second Round		
Metropolitan Area	..	..	..	..	383,413	534,030	917,443
Newcastle Area (b)	..	..	..	..	.....	127,942	127,942
Wollongong Area (c)	..	..	..	..	68,335	.....	68,335
Other Country Areas	..	..	..	..	33,637	70,841	104,478
Total	..	..	..	..	485,385	732,813	1,218,198
					Third Round		
Metropolitan Area	..	..	..	..	94,585	431,762	526,347

(a) Excluding approximately 40,000 X-rays in the first survey of Bankstown Municipality, accurate figures of which are not available.
(b) Comprising City of Newcastle and Shires of Lake Macquarie and Lower Hunter.
(c) Comprising City of Greater Wollongong and Municipality of Shellharbour.
(d) Including first round survey of Broken Hill which was carried out by the Commonwealth Department of Health.

On studying the total coverage for New South Wales this includes country, city and miscellaneous surveys. 71.8 per cent. of the people have responded overall, 66 per cent. in the Cumberland area.

At the request of the Under Secretary a report on field surveys in respect of the Anti-Tuberculosis Association of New South Wales was furnished by Dr. K. W. H. Harris. In this report Dr. Harris stressed the need for direct and closer liaison between the Tuberculosis Division and the Anti-Tuberculosis Association.

EPIDEMIOLOGY SECTION

During the year 1958 the Epidemiology Section continued to carry out surveys of schoolchildren.

Preceding the units of the Anti-Tuberculosis Association the surveys were confined largely to the North Coast of New South Wales. B.C.G. Vaccination, as in previous years following the introduction of poliomyelitis injections, was restricted to National Service Trainees, Contacts, Those at Risk (including Medical students and nurses) and Aborigines.

The total figures are set out in Table IV of the Statistical Appendix.

FIELD SURVEY

The field surveys mainly ranged in schools from Lismore to Gloucester, covering an area where cattle are highly infected with Tuberculosis. As a result there was a large number of children with positive reactions and a consequent large number of chest X-rays of their contacts.

In this northern coastal area of the State, although cattle infectivity is high, the morbidity rate in humans is not comparable. The inference is that a form of vaccination may be taking place.

NATIONAL SERVICE TRAINEES

The number tested and vaccinated are lower than for the year 1957 owing to the decrease of young men called up for training.

CONTACTS

Vaccination of contacts of tuberculous patients and also of "Those at Risk" continue to be carried out at George Street North as required.

ABORIGINES

Due to increased effort within the Epidemiology section and the co-operation of Aborigines Welfare Officers and Station Managers and Police Officers, it is pleasing to note that many aborigines are now requesting tests, whereas previously many would go bush on the appearance of the survey teams.

During 1958, 1,308 aborigines of all ages were tested of whom 906 were vaccinated and 513 gave positive reactions. Three were found to have active tuberculosis, five inactive tuberculosis, whilst seven had other abnormalities. These figures are included in Table IV.

FUTURE PLANS

It is planned:—

- (1) To continue testing schoolchildren—with particular attention to the school entrant and school leaver.
- (2) To Mantoux test Commonwealth Scholars and Teachers College Trainees.
- (3) To Mantoux test all available University Students.
- (4) To continue Mantoux testing and vaccinating Contacts, Those at Risk, National Service Trainees and Aborigines.
- (5) To carry out conversion Mantoux Surveys on the vaccinated groups as far as possible.
- (6) To carry out pilot surveys in specialised areas.

VISITING NURSING SERVICE

This Section now comprises two medical officers and twenty-eight nurses and combines the duties of Domiciliary and Nursing Services. Thirteen nurses are permanently attached to a metropolitan area or clinic, two are used to provide relief for the metropolitan and country sisters, and 13 are attached permanently to country clinics connected with, or established at country Hospitals.

Chest Clinics are conducted by these nurses at Manly, Parramatta, St. George and St. Vincent's Hospitals in the metropolitan area and at Albury, Armidale, Bathurst, Cessnock, Newcastle, Dubbo, Goulburn, Grafton, Kempsey, Lithgow, Bodington, Lismore, Orange, Port Macquarie, Tamworth, Wagga, Wollongong, Quirindi, Gunnedah, Murwillumbah, Ballina, Casino, Kyogle and Cowra Hospitals in the country districts. A number of these country clinics are conducted as sub-clinics by the nurse in charge of a Base Hospital Clinic.

Liaison is also maintained with other Chest Clinics, Randwick Chest Hospital, Repatriation General Hospital, Concord and the Royal Alexandra Hospital for Children.

Both British and Foreign Migrants were visited during the year and arrangements made for their X-ray and skin tests. Of 257 White Russians, who arrived from China and were X-rayed, three were found to have active Tuberculosis and eight inactive tuberculosis.

Visits were also made to various people by request of the Medical Research Council, England, for B.C.G. follow-up.

The number of patients requiring Streptomycin injections decreased considerably, but there has been no great decrease in the total number of visits made to patients. Statistical details of visits, injections, etc., are set out in Table V of the Statistical Appendix.

TUBERCULOSIS ALLOWANCES SECTION

The following table summarises the work performed by this Section over the last five years:—

	1954	1955	1956	1957	1958
Applications for T.B. Allowance—					
Action incomplete at end of previous year	8	..	20	28	40
New Applications	1,339	1,175	1,023	824	643
Applications for renewal after previous termination	174	209	206	157	132
	1,521	1,384	1,249	1,009	815
Approvals	1,414	1,234	1,123	999	795
Refusals.. .. .	71	73	53	52	36
Not proceeded with	23	15	3	..	4
Action incomplete at end of year .. .. .	..	20	28	40	8
	1,508	1,342	1,207	1,091	843
Terminations	1,130	1,893	1,486	865	752
Cases in pay at end of year	1,537	1,878	1,503	1,119	815

There has been a decrease of 50 in the number of original applications for the Tuberculosis Allowance during the year, compared with a decrease of 210 notifications during 1958.

The number of cases terminated was 752, 113 less than the previous year.

HOSPITALS, SANATORIA AND CLINICS

Tables VI and VII of the Statistical Appendix set out details of the number of patients treated by the various hospitals, sanatoria and clinics during the year ended 30th June, 1958. The figures for hospitals cover only those which have accommodation specially set aside for the treatment of tuberculosis.

A total of 5,634 persons were treated as in-patients in these institutions during 1957-58, of whom 718 were still hospitalised at 30th June, 1958.

In all, tuberculous patients occupied an average of 893 beds per day, equivalent to 340,000 occupied bed days during 1957-1958.

There were 391 available beds unoccupied at these institutions on 30th June, 1958.

No new bed units were opened during 1957-1958. It is expected, however, that the last new unit or treatment of tuberculous in-patients to be constructed in this State will be opened at St. Vincent's Hospital in June, 1960. This unit will accommodate 100 patients.

New out-patient sub-clinics were opened at Ballina, Casino, Cowra, Gunnedah, Kyogle, Murwillumbah, Port Macquarie, Quirindi and Wauchope.

During 1957-1958 there was a decrease of 3,160 persons on the clinic register throughout the State, giving a total of 39,082 persons attending clinics.

The number of attendances of patients and their contacts is estimated to be approximately 195,000.

Over 122,000 X-ray examinations and approximately 50,000 bacteriological examinations were carried out and over 1,000 new active cases of tuberculosis were diagnosed in the clinics. As in previous years this latter figure does not agree with the corresponding figure in Table I of the Statistical Appendix. This is accounted for by the fact that many cases of tuberculosis are referred to the Chest Clinics for final diagnosis, by private medical practitioners and also by Mass Chest X-ray Surveys.

Credit for the notification in these cases is not given to the chest clinic, but to the referring person or body, although the final diagnosis is made by the clinic.

ROUTINE X-RAYING OF HOSPITAL PATIENTS

At 31st December, 1958, 14 hospitals were X-raying their patients as a routine procedure.

Hospital patients are still regarded as a significant group to which attention should be paid in any case finding programme. Under the present scheme, all in-patients have a chest X-ray on admission, and all out-patients, who have been attending for more than 5 years are also X-rayed.

During the year ended 31st December, 1958, approximately 62,000 hospital patients were X-rayed and to date 1,040 new active cases of tuberculosis have been discovered.

REHABILITATION

Rehabilitation of persons in receipt of Tuberculosis Allowance is catered for by a panel consisting of the Director of Tuberculosis for N.S.W., as Chairman, Dr. Glick (Medical Officer, Commonwealth Rehabilitation Branch), the Education and Training Officer of the Rehabilitation Section of the Commonwealth Department of Social Services and a representative from the Commonwealth Employment Services.

At the panel meetings, the medical officer in charge of each case, when available, and the almoner or social worker at the clinic or hospital concerned, are co-opted for advice and any additional information they may have on the person concerned.

In the six years ended 31st December, 1958, a total of 560 Tuberculosis Allowance cases were placed in employment, while 375 completed courses of training. Of the 145 placed in employment during year ending 31st December, 1958, 46 did not receive any rehabilitation training.

During the year ended 31st December, 1958, 166 were admitted to Rehabilitation Centres in the State and 79 completed training.

Rehabilitation Centres are conducted by the Commonwealth at Mt. Wilga, by N.A.P.T.A., at Crows Nest and the Citizens' T.B. League at Rozelle.

TABLE I—NOTIFICATIONS OF NEW CASES OF TUBERCULOSIS DURING YEAR ENDED
31ST DECEMBER, 1958—NEW SOUTH WALES

			Stage of Disease												Total		
			Pulmonary								Extra-Pulmonary		Death Certificate				
			Minimal		Moderately Advanced		Far Advanced		Not Stated								
			M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.				M.	F.	P.
SOURCE OF DISCOVERY																	
Private Practitioner	42	34	95	50	36	11	..	..	12	10	..	..	185	105	290
Chest Clinic	33	26	58	24	11	3	..	..	..	..	..	..	102	53	155
Sanatorium	1	..	1	2	1	..	..	..	1	1	..	..	4	3	7
Hospital	34	37	73	22	33	8	1	..	11	15	3	..	155	82	237		
Repatriation Dept.	8	1	18	..	4	..	..	..	..	..	1	..	31	1	32
Contact Follow-up	5	1	4	2	..	..	..	..	..	1	..	..	9	4	13
Mantoux Testing.. ..	3	1	..	..	1	..	..	..	..	..	..	..	4	1	5
Mass X-Ray Survey—																	
Health Dept.	17	7	37	22	7	2	..	..	..	..	..	..	61	31	92
Anti-T.B. Assoc.	91	56	191	70	11	4	..	..	..	1	..	..	293	131	424
Other	18	3	20	3	2	..	..	..	..	..	2	2	42	8	50
Death Certificate .. ..	..	..	..	..	..	..	..	..	..	..	74	20	74	20	94
Total	252	166	497	195	106	28	1	..	24	28	80	22	960	439	1399		
AGE-GROUP (YEARS)																	
Under 1	1	3	..	..	..	1	..	..	..	1	..	1	1	6	7
1-4	7	6	2	1	..	1	..	..	3	5	..	1	12	14	26
5-9	3	1	1	2	..	..	..	..	5	4	..	..	9	7	16
10-14	2	3	1	2	..	..	..	..	4	2	..	..	7	7	14
15-19	9	6	3	11	..	..	..	..	..	1	..	..	12	18	30
20-24	9	23	10	13	1	1	..	..	1	3	..	..	21	40	61
25-29	21	18	29	19	5	2	..	..	4	2	..	2	59	43	102
30-34	21	20	29	27	3	5	..	..	3	2	..	2	56	56	112
35-39	26	22	42	21	10	4	..	..	..	1	4	2	82	50	132
40-44	33	10	40	18	14	2	..	..	..	..	2	1	89	31	120
45-49	27	12	62	26	10	3	..	..	1	2	5	3	105	46	151
50-54	19	11	53	15	18	2	..	..	1	..	4	..	95	28	123
55-59	24	7	57	10	14	2	..	..	1	..	10	..	106	19	125
60-64	17	6	61	12	11	..	1	..	..	2	14	2	104	22	126
65-69	18	9	47	8	11	2	..	..	..	1	10	..	86	20	106
70-74	11	4	30	3	6	1	..	..	1	1	9	4	57	13	70
75 and over	4	4	30	7	3	2	..	..	..	..	21	4	58	17	75
Not Stated .. ..	..	1	..	..	..	..	..	..	..	1	1	..	1	2	3
All Ages	252	166	497	195	106	28	1	..	24	28	80	22	960	439	1399		

TABLE II — DEPARTMENT OF PUBLIC HEALTH — COMMUNITY WIDE X-RAY SURVEYS

	First Round	Second Round	Third Round	Total
1. Year ended 31st December, 1958.				
(a) Number of Micro films—				
(i) Metropolitan Area .. ..	....	97,388	94,585	191,973
(ii) Country Areas .. ..	....	11,687	....	11,687
	....	109,075	94,585	203,660
(b) Estimated population aged 14 years and over in areas surveyed—				
(i) Metropolitan area .. ..	....	154,800	169,800	324,600
(ii) Country areas .. ..	....	10,380	....	10,380
	....	165,180	169,800	334,980
(c) Number of new active cases—				
(i) Metropolitan Area .. ..	....	40	15	55
(ii) Country Areas .. ..	....	....	....	....
	....	40	15	55
(d) Number of cases still under investigation—				
(i) Metropolitan Area .. ..	....	28	126	154
(ii) Country Areas .. ..	....	86	....	86
	....	114	126	240
2. Total since commencement of campaign*—				
(i) Total number of micro films	593,508	485,385	94,585	1,173,478
(ii) Number of new active cases	249	160	15	424
(iii) Number of cases still under investigation .. ..	....	114	126	240

* Excluding the first round survey of Bankstown Municipality, but including the first round survey of Broken Hill Municipality.

TABLE III—CHEST X-RAY SURVEYS COMPLETED DURING 1958, BY DIVISIONS, ETC.

Statistical Division	Number of Micro-film Examinations	Estimated Total Potential (Persons)	Coverage (per cent.)	Technical Faults		Probable Abnormalities Requiring Re-ray		Active T.B. Diagnosed			Cases of Inactive T.B. Diagnosed	Other Abnormalities Detected	Number of Cases Still Under Investigation
				Technical Faults		Probable Abnormalities Requiring Re-ray		Previously Known Cases	New Cases				
				Number	Per 100 Micros	Number	Per 100 Micros		Number	Per 10,000 Micros			
County of Cumberland—													
Sutherland	36,869	59,450	63·8	440	1·19	572	1·55	Nil	3	0·82	117	147	..
Holroyd	18,916	32,920	57·5	170	0·89	270	1·53	Nil	8	4·23	61	70	..
Fairfield	28,735	41,310	65·5	186	0·64	591	2·06	2	22	7·65	116	151	16
Liverpool.. ..	12,868	21,120	60·9	57	0·44	222	1·72	Nil	7	5·44	63	61	12
Canterbury	47,104	79,750	59·1	250	0·53	842	1·78	3	11	2·36	145	251	76
Bankstown	47,481	90,050	52·7	240	0·51	778	1·64	Nil	4	0·84	109	192	50
Total	191,973	324,600	59·2	1,343	0·69	3,275	1·17	5	55	2·86	611	872	154
Central Western Slope													
Parkes	8,514	8,030	160·0	17	0·19	154	1·81	..	..	..	2	13	60
Tullamore													
Trundle													
Bogan Gate													
Peak Hill													
Narramine	3,173	2,350	135·0	17	0·54	36	1·13	..	..	..	3	26	
Trangie													
Total	11,687	10,380	112·9	34	0·28	190	1·62	..	..	..	2	26	86
Chest X-ray Centre	29,390	..	..	290	0·98	602	2·05	4	31	10·54	243	233	53
Special Groups ..	4,644	..	..	28	0·61	58	1·22	Nil	4	8·61	11	16	1
Total all Surveys	237,694	..	..	1,695	0·71	4,125	1·71	9	90	3·78	867	1,147	294

TABLE IV — EPIDEMIOLOGY SECTION

	1956-1957		1957-1958	
Field Surveys—				
No. of schools visited	851
No. of pupils tested	123,722
No. of positive reactors	18,411 + 626*
No. vaccinated	129
Total No. X-rays	50,558
No. persons with active Tuberculosis	29
No. persons with inactive Tuberculosis	231
No. persons with lesions other than Tuberculosis	183
National Service Trainees—				
No. tested	3,748
No. positive reactors plus positives following B.C.G. Vaccine	764 + 951
No. vaccinated	2,026
Others (Contacts, Medical Students, Nurses and Aborigines)—				
No. tested	1,985
No. positive reactors plus positives who have had B.C.G.	700 + 90
No. vaccinated	1,025

* Due to B.C.G.

TABLE V—TUBERCULOSIS NURSES (METROPOLITAN) 1958

	January	February	March	April	May	June	July	August	September	October	November	December	Com- parison December 1957
No. of working days spent at Clinic	57	57	62	59½	60½	64¾	84	80	65½	82½	85	63	..
No. of cases receiving Streptomycin	222	208	197	155	148	161	216	343	142	133	217	130	..
No. of visits to cases receiving Streptomycin	2,079	1,706	1,862	1,560	1,634	1,592	1,733	1,434	1,699	1,658	1,561	1,491	2,080
No. of visits for dressings	110	236	130	151	178	169	139	160	188	194	177	126	133
No. of visits made at request of Division other than above	484	570	799	762	907	650	1,057	616	704	831	907	493	319
No. of visits made at request of other Doctors, Clinics, etc.	129	132	737	89	102	100	89	124	157	175	186	326	71
Total No. of Visits	3,074	2,644	2,906	2,536	2,969	2,565	3,021	2,400	2,748	2,858	2,831	2,612	2,003

Total for 12 months January-December, 1958 = 33,264 Visits.

TABLE VI—TUBERCULOSIS HOSPITALS AND SANATORIA, 1957-1958

Institution	Number of In-patients					Occupied Bed Days	Daily Average No. of occupied Beds	Average Duration of stay (Days) †	Number of Beds at 30th June, 1958		
	At 1st July, 1957	Discharged 1957-58	Died, 1957-58	Admitted 1957-58	At 30th June, 1958				Occupied	Unoccupied	Total
Anti-T.B. Association ..	15	289	..	284	10	4,112	11.3	14.8	10	6	16
Albury District Hospital ..	7	25	1	26	7	2,891	7.9	111	8	15	23
Bathurst District Hospital ..	..	5	1	6	..	121	.33	20	..	6	6
Canterbury District Memorial Hospital ..	21	75	7	76	15	6,552	17.95	80	15	10	25
Dubbo Base Hospital ..	10	21	4	24	9	3,116	8.5	124.64	9	1	10
Goulburn Base Hospital ..	6	11	..	14	9	2,953	8.1	128	9	1	10
Grafton Base Hospital ..	1	13	..	21	9	1,451	4	50.4	9	1	10
Lidcombe State Hospital ..	33	60	4	63	32	11,243	30.8	172	32	8	40
Lismore Base Hospital ..	5	37	3	44	4	2,685	7.36	61	4	6	10
Lourdes Public Hospital ..	14	38	1	43	18	6,105	16.7	156	18	..	18
Manly District Hospital ..	8	53	3	57	4	2,863	8.0	45	4	..	15
Orange Base Hospital ..	2	7	..	7	2	394	1.1	56	2	..	2
Parramatta District Hospital ..	15	108	5	114	16	5,297	14.5	46.9	16	..	16
Picton Lakes Village ..	15	24	..	27	18	6,195	17.0	149.1	18	13	31
Q.V. Homes—									No beds set aside specifically for T.B.		
Picton ..	46	148	..	158	56	19,451	53.5	131.3	56	49	105
Wentworth Falls ..	26	26	1	1	..	3,842	*	505.4	..	..	..
Randwick Chest Hospital ..	203	246	48	295	204	73,299	200.8	350	204	22	226
Rankin Park Chest Hospital ..	74	150	10	145	60	25,686	70.4	109.5	60	54	114
R.G.H. Concord ..	178	1,240	79	1,347	206	66,089	182.2	50.1	206	12	218
Lady Davidson Home ..	84	205	7	158	37	2,376	6.5	250	37	7	44
Royal Alexandra Hospital for Children ..	22	60	..	54	16	7,239	19.8	95.2	16	12	28
Royal North Shore Hospital ..	59	660	28	679	50	20,330	55.7	29	50	50	100
Princess Juliana Annexe ..	63	193	..	82	38	23,272	63.7	115	38	62	100
Royal Prince Alfred Hospital ..	15	718	31	799	65	20,305	55.6	27	65	35	100
St. George District Hospital ..	10	42	7	51	14	3,855	10.5	120	14	1	15
Tamworth istrict Hospital ..	18	38	4	32	8	3,509	9.6	82.5	8	12	20
Wagga District Hospital ..	7	36	1	36	6	2,517	6.9	68	6	4	10
Wollongong District Hospital ..	7	26	..	24	5	1,768	4.9	68	6	4	10
Bodington Chest Hospital ..	95	116	1	27	..	10,080	*	203	..	..	..
	1,059	4,670	246	4,694	918	339,596	893.64	117.9	920	391	1,322†

* Closed during year 1957-58.

† Discharges and deaths only.

‡ Excluding units which did not operate throughout the full year.

TABLE VII—TUBERCULOSIS OUT-PATIENTS CLINICS, 1957-1958

Institutions	Number of Tuberculous Patients		Number of Attendances (Patients and Contacts)	X-rays Taken		No. of Bacteriological Examinations	New Cases Diagnosed	
	At 1st July, 1957	At 30th June, 1958		Micro	Large		Active	Inactive
Anti-T.B. Association	23,756	22,848	118,692	38,715	23,201	23,539	700	1,990
Albury District Hospital	53	76	1,879	1,472	629	61	Figures not available	3
Armidale District Hospital	13	15	356	237	610	12	2	106
Bathurst District Hospital	35	34	166	..	650	406	1	5
Bodington Chest Hospital	134	219	1,433	..	1,105	20	32	58
Broken Hill and District Hospital	30	44	312	..	225	431	11	11
Canterbury District Memorial Hospital	958	963	11,179	645	4,904	434	10	2
Cessnock Joint Coal Board	1,788	1,923	894	..	512	281	8	1
Dubbo Base Hospital	50	61	1,584	232	244	25	4	4
Goulburn Base Hospital	13	16	122	..	846	73	15	7
Grafton Base Hospital	7	49	1,471	49	846	40	..	..
Macleay District Hospital, Kempsey	26	30	1,424	..	450	3	14	40
Kyogle Memorial Hospital	..	4	45	..	16	..	10	74
Lismore Base Hospital	1	55	688	..	112	506	3	..
Manly District Hospital	424	508	3,070	..	1,958	75	10	..
Orange Base Hospital	146	103	1,174	180	1,029	1,019	25	157
Parramatta District Hospital	318	588	6,855	1,484	1,920	22	..	..
Q.V. Homes Picton	6	16	69	..	162	1,595	..	..
Randwick Chest Hospital	295	326	1,920	..	670	4,449	*	*
R. G. H. Concord	4,069	4,158	6,354	..	4,384	1,694	50	73
Royal Newcastle Hospital	1,782	1,708	8,460	1,019	13,601	1,173	22	178
Royal North Shore Hospital	1,621	1,865	9,666	..	4,380	12,687	27	36
Royal Prince Alfred Hospital	1,912	1,304	4,789	382	8,333	426	20	102
St. George District Hospital	643	774	3,110	..	1,711	126	10	19
St. Vincents Hospital	16	43	128	..	66	491	49	42
Sydney Hospital	332	977	3,651	617	1,366	248	10	2
Tamworth District Hospital	90	113	872	..	736	88	6	6
Wagga District Hospital	50	80	2,359	..	1,124	396	9	9
Wollongong District Hospital	71	182	2,587	506	1,708	..	..	..
	38,639	39,082	195,909	45,538	77,498	50,320	1,040†	2,925†

* Figures not available separately — Total number of new cases (active and inactive) diagnosed was 242.
† Excluding cases diagnosed by Repatriation Department — See *

F. Industrial Hygiene

REPORT OF THE DIRECTOR, DIVISION OF INDUSTRIAL HYGIENE FOR THE YEAR ENDED 31st DECEMBER, 1958

Staffing and Organisation

MEMBERS OF THE DIVISION

Director: Alan Bell, M.B., B.S., D.I.H.

Medical Officers: E. O. Longley, M.B., B.S.; D. C. Trainor, M.B., Ch.M., F.R.C.S.E., F.R.A.C.S. (Commenced April, 1958).

Senior Scientific Officer: H. M. Whaite, B.E.

Scientific Officers: J. L. Sullivan, M.Sc., F.S.T.C.; A. T. Jones, B.Sc.; W.E. Foskett, B.Sc.; H. R. Weston, A.S.A.S.M.

Laboratory Assistant: T. Miller.

Laboratory Attendant: J. Thomas.

Stenographer: Mrs. M. F. Hill (Resigned January, 1958); Miss R. Woodhams (Commenced January, 1958).

Clerical Officer: P. Drake (Resigned February, 1958); Miss F. Tierney (Commenced March, 1958).

With the exception of Dr. D. C. Trainor joining the Division there has been no change in senior personnel.

THE YEARS' WORK

STATISTICAL DATA

Tye of Activity	1955	1956	1957	1958
Number of patients examined	782	1,129	2,080	2,536
X-rays in connection with pulmonary chest disease.	136	128	394	336
Cases referred to consultant	113	53	34	30
Blood slides examined for Lead poisoning	4,561	4,651	5,594	(1). Slides sent by medical officers of factories where a lead process is carried out = 4,436. (2.) Slides of men examined at the Division of Industrial Hygiene = 953 Total = 5,389
Number of Pathological Tests: Blood, Urine, Sputa, Skin Scrapings, etc.	Not known	3,444	3,837	4,393
Inspections—				
(a) Industrial	337	512	508	786
Man-hours in Field	Not known	1,501	1,956	3,600
(b) Atmospheric pollution	41	185	199	166
Man-hours in field	469	589	650	926
(c) Theatres and Public Halls	5	5	5	9

The commonest problems investigated were:—

Subject	Number of Visits						
Atmospheric Pollution	166
Radiation	102
Dust	88
Lead	32
Insecticides	27
Noise	15

PUBLICITY

Published Articles:—

- (1) "A Survey of Shoe Fitting X-ray Fluoroscopes Located in New South Wales" by A. Bell and H. M. Whaite.— Medical Journal of Australia, May 31st, 1958.
- (2) "Radiation Health Problems in New South Wales" by A. Bell — 1958 issue of Secondary Industries Digest.
- (3) "A Survey of Radiation Exposure in Sixty Dental Suites in the City of Sydney" by W. E. Foskett — Australian Dental Journal, August, 1958.

COMMITTEE WORK

The Division is represented on the following committees:—

- (a) Industrial Hygiene Committee of National Health and Medical Research Council of Australia — A. Bell.
- (b) Standing Committee in Dust Research Control — Sponsored by Joint Coal Board — H. M. Whaite.
- (c) Local Government Committee on Atmospheric Pollution — J. L. Sullivan.
- (d) Standards Association of Australia:—
 - (i) Safety Standards Co-ordinating Committee — A. Bell.
 - (ii) Refrigeration Sectional Committee No. 2 — A. Bell.
 - (iii) Protective Clothing Committee — H. M. Whaite.
 - (iv) Industrial Safety Helmets — H. M. Whaite.
 - (v) Selection, Use and Maintenance of Breathing Apparatus — H. M. Whaite.

REGULATIONS OF INTEREST TO INDUSTRIAL HYGIENISTS

1. ABRASIVE BLASTING WITH SPECIAL REFERENCE TO SANDBLASTING

At the end of the year the first draft of “Regulations to Secure the Safety and Health of Employees in Factories in Which Abrasive Operations are Carried On”, had been produced; these Regulations, if gazetted will, as is the case with the next two items, be administered by the N.S.W. Department of Labour and Industry.

2. LEAD

Regulations to secure the Safety and Health of Employees in Factories in Which Lead Processes Are Used

The 1956 Regulations enable the Chief Inspector of Factories to issue an exemption to any factory occupier for any or all of the provisions of these Regulations. Before doing this, it is his usual practice to consult the Division and, where necessary, medical examination and scientific evaluation of employees' exposure to this toxic metal are assessed. During the year eighteen total or partial exemptions have been issued.

Because the Regulations require that factories carry out regular blood tests Mr. Miller, the Division's pathology technician, has visited several factories to help industrial medical officers organise their own service.

An amendment to the Regulations was gazetted; this related to minor administrative matters concerning the appointment of “authorised medical officers”.

3. WELDING

“Regulations to secure the Safety and Health of Persons Employed in Factories in which Welding, Riveting or Cutting Processes” were gazetted in December. These require the employer to provide suitable types of:—

- (a) Screens.
- (b) Goggles, Shields or Helmets.
- (c) Gloves, aprons and spats.
- (d) “Approved” barrier cream (an approved barrier cream is one which has been so formulated to provide effective protection against ultra violet rays.)

Apart from the above there must also be provided adequate protection against fumes and “..... any material where by reason of its composition, the presence on its surface of any substance, the composition of the electrodes or welding rods, or the nature of the process, toxic fumes may be given off and if not removed from the atmosphere may exceed the maximum allowable concentration of toxic fumes as determined from time to time by the Industrial Hygiene Committee of the National Health and Medical Research Council

4. RADIATION

The Radiological Advisory Council, as instituted under the Radioactive Substances Act, 1957, has held a series of meetings for the purpose of drawing up Regulations under the Act.

DETAILS OF THE YEARS' WORK

Because the number of investigations carried out by the Division is steadily increasing each year, it is no longer practical, because of space limitations, to record details of all the investigations carried out. I propose, therefore, to limit myself to brief details of the more unusual or newer activities.

SURVEYS AND OCCUPATIONAL DISEASES OF INTEREST

METALS

Lead Statistics

The following Table shows the results of "stipple cell" counts made by the Division on slides submitted by Doctors undertaking medical examination of men working at lead processes:—

Industry	Number of slides Submitted			Number of Slides with Stipple Counts of 3000—5000 or more Per million Red Cells					
				3000—5000			5000 or more		
	1956	1957	1958	1956	1957	1958	1956	1957	1958
Battery Works	3,577	3,506	3,649	16	69	83	7	19	41
Manufacture of Lead Compounds	494	457	550	11	6	18	8	7	12
Miscellaneous—Other Uses of Lead Compounds.	580	661	277	1	5	10	1	2	4
Total	4,651	4,624	4,476	28	80	111	16	28	57

	1956	1957	1958
	per cent.	per cent.	per cent.
Incidence of Counts in Excess of 3,000 per million P. B. G.'s	0.89	2.1	5.3

I do not attribute the above increase to a general worsening of factory conditions where lead processes are carried out, but rather to the fact that many factories which have used lead for a long time are now having regular medical examinations for the first time.

Manufacture of Dry Charge Batteries

1. During the year several employees, who previously had never had any high counts, started to show quite marked heavy stippling. Investigations within the factories showed that the people concerned were manufacturing dry charge accumulator plates. This process is, in New South Wales, comparatively new.

Fundamentally the methods of manufacture of the two types of plate differ little. The major difference is the double handling of dried plates in making dry charge accumulators.

Ordinary plates are wet pasted and allowed to damp dry in the atmosphere in racks and then are oven dried in many instances. They are then trimmed, separated, tacked in groups by burning and taken to the formation room where they are formed in sulphuric acid. They are then rinsed, placed in battery boxes in groups whilst still damp, the box sealed and acid filled and charged. Trimming, separating and grouping involve handling of dry plates.

Dry charge plates, although similar but with an added antioxidant, on the other hand are oven dried, trimmed, separated, tacked in groups, formed in sulphuric acid, separated, oven dried, re-separated and regrouped then placed in battery boxes and sealed in. This involves handling dry plates for trimming, separating, grouping, re-separating, regrouping and placing in boxes. Because of the extra handling of dry plates the risk of exposure to lead containing dusts is increased unless strict attention is paid to the use of local exhaust ventilation for these operations.

Lead and Chronic Nephritis

2. Twenty-one linotype and keyboard room employees working in a large printing factory were examined for evidence of chronic nephritis. In no case was any abnormality found. This investigation was undertaken at the request of the union who alleged that for many years working conditions had been unsatisfactory. Lead in air tests taken in the vicinity of the numerous linotype machines were as low as 0.016 mg./cubic metre.

Miscellaneous

3. The following brief details relate to other cases of lead poisoning which have been seen throughout the year:—

Operation	Breathing Zone Lead in Air Concentration Mgm./c.m.
Dedrossing a fifty ton lead pot ..	1.44
Manufacture of Lead Oxide—	
(a) During cleaning of sieves ..	0.96
(b) Bagging of “ fines ”	0.65
(c) Between 2 discharge hoppers	0.43
Manufacture of P.V.C.—	
(a) Milling at small rolls ..	1.36
(b) Charging Mixer	0.22
(c) Inspecting hot mix	0.07
(d) Emptying mixer	1.1
(e) Cleaning of Gardiner Mixer ..	0.19
Fumes from stereo pot	0.8
Manufacture of Lead Pigments—	
(a) Loading of yellow pigment into chute	3.6
(b) Discharge of blender ..	0.6
In Brass Foundry—	
(a) During casting near furnace ..	0.22
(b) In mould pouring area ..	3.4
Spraying Lead Paint—	
(a) On to steel work (in open air)	2.8
(b) On to tiles	4.0
Galvanising of Wire—	
(a) Passing wire through lead quench patenting Plant ..	3.8
(b) Pot sweeping	5.4
(c) Rejoining broken wires ..	16.5
(d) Dedrossing	18.0

PLASTICS*Formalin*

Six employees developed upper and lower respiratory tract irritation from formalin, whilst spraying and dipping furniture with a clear plastic spray, in order to obtain a hard polish finish. Five out of eight tests gave results above the M.A.C. for formalin of 5 p.p.m.; the highest figure was 13 p.p.m.

Polytetrafluoroethylene

This material, supplied under several trade names such as Fluon, Teflon or Agaflon, etc., may produce symptoms of metal fume fever. During the year two factories have been visited and conditions under which the material is used observed. Two cases of metal fume fever from this cause were seen.

Styrene

In a small factory twelve men and women were exposed to styrene vapour in the manufacture of corrugated fibreglass sheeting. Six of these people complained of chest pains—in no instance was it possible to detect chest abnormalities either clinically or by means of X-ray. “Styrene sickness”, as this syndrome has been called by American observers, consists of chest pains together with minor symptoms of nausea and sore eyes. Four of the remaining workers suffered from skin irritation due to contact with the fibreglass.

The following Table shows the concentrations of styrene monomer present in the breathing zones of the workers at different phases of the manufacturing process:—

Operation	P.P.M. of Styrene Monomer
Mixing of Resin	14
Applying Resin	21
Spreading Resin	10
Moulding Sheets	11

Although in all instances the values obtained were substantially below the suggested M.A.C. of 100 p.p.m., we consider that exposure to these fumes was the cause of these men's symptoms.

SOLVENTS

Carbon Tetrachloride

1. A thin youth of 19 years of age, with a recent history of colitis, developed a grossly enlarged liver whilst using this solvent in the manufacture of fire extinguishers. The results of liver function tests were as follows:—

Serum Bilirubin	..	..	..	..	..	0.4 mgm.
Alkaline Phosphatase	..	..	..	..	..	8.4 units
Zinc Sulphate	..	..	..	..	..	7.0 units
Thymol Turbidity	..	..	..	..	..	3.0 units

His exposures were as follows:—

Operation	Carbon Tetrachloride Concentrations Parts per Million		
Testing Extinguishers	60
Filling Extinguishers	42

In addition, apart from vapour exposure, there was considerable skin contamination — for example, it was his practice to shake the extinguishers on to his bare hands to test for leaks.

The work is now carried out under an efficient local exhaust system.

2. One young thin girl using carbon tetrachloride for the experimental extraction of D.D.T. insecticides from foodstuffs, mainly butter and apples, developed gastric symptoms followed by jaundice.

Her exposures to this solvent were as follows:—

Operation	Carbon Tetrachloride Parts per Million
Preparing Chromatographic columns..	55
Running Extract and Carbon Tetra- chloride through Column ..	22
Filtering Experimental Carbon Tetra- chloride Butter Extracts	60

Toluol

1. Because of a dispute between the Printing Industry's Employees Union of Australia and a large newspaper, we were asked to medically examine the workers and test the atmosphere for evidence of unsatisfactory working conditions.

Twenty-four men were medically examined; of these eleven had a neutropenia with an associated increase in the percentage of lymphocytes. Several men complained of headaches, abnormal fatigue, insomnia and gastric upsets. Five men also stated that in the rotogravure room they frequently felt dizzy and occasionally fainted when "the Fumes were bad".

Toluol concentrations varied from 1,000 p.p.m. (inside the hoods when washing the rolls with X3B solvent) and 450 p.p.m. (on the catwalks on top of the presses) to as low as 30 p.p.m. in the general atmosphere of the ink room.

From the foregoing it will be seen that in many instances working conditions were unsatisfactory and arrangements were made to instal a forced draught to substantially reduce the exposure of the operators while washing down the rolls.

2. Because one employee developed temporary symptoms of narcosis while blending D.D.T. and Malathion, the factory was inspected and tests carried out during the various manufacturing phases.

The results were as follows:—

Operation	Toluol Concentrations In Parts per Million
Pumping Toluol into Blender from 44-gallon drums	40
Tipping D.D.T. into Mixer	300
Tipping Emulsifier into Mixer ..	500
During Mixing	500

The installation of an efficient hood with mechanical exhaust was recommended.

ACIDS

Thioglycollic Acid

Si-Ro-Set Process for the Durable Creasing and Pleating of Pure Wool Fabrics — By arrangement with the Wool Textile Research Laboratories of the Commonwealth Scientific and Industrial Research Organisation we have inspected and tested 8 spray booths; in this new process 1-2 per cent. of ammonium thioglycollate is sprayed onto the garments. Where necessary we have also advised on other aspects of safety and suitable plant Layout.

Although a maximum allowable concentration for thioglycollic acid has not been suggested by any Governmental authority, in some of the factories visited we estimated concentrations of this acid present in the breathing zone of the workers.

Location						Breathing Zone-thioglycollic acid in air concentrations (m.g.m. per c.m.)
Near Sprayer	..	..	..	..	..	0.1; 2.0
Near Presser	..	..	..	..	..	0.04; 1.0

At times a faint smell of H₂S could be detected; on no occasion was it possible to detect its presence quantitatively by the lead acetate D.S.I.R. method.

GASES

During the year we carried out tests on the exhaust products from Diesel equipment used underground on the Snowy Mountain Scheme. The following table summarises the results obtained.

Type of Vehicle			Carbon Monoxide	Aldehydes (As Form-aldehyde) P.P.M.	Nitrous Fumes P.P.M.	Sulphur Dioxide	Carbon Dioxide	Oxygen
							per cent.	per cent.
Mighty Antar (a)	..	..	350	12	3	20	0.0	20.0
Mighty Antar (b)	..	..	350	10	3	20	0.8	20.1
Mighty Antar (c)	..	..	100	19	8	(Not Determined)	0.6	20.1
Mighty Antar (d)	..	..	190	19	11	(Not Determined)	0.8	20.0
Hippo Truck (a)	..	..	600	19	24	(Not Determined)	1.0	20.5
Hippo Truck (b)	..	..	100	14	11	(Not Determined)	1.0	19.7
Hippo Truck (c)	..	..	190	18	14	(Not Determined)	0.8	20.0

From our investigations we concluded that exhaust fumes from the diesel equipment tested, could cause eye and nasal irritations and possibly an associated odour nuisance. Recommendations were made concerning the desirability of fitting all Hippo trucks with exhaust scrubbers.

INSECTICIDES, FUNGICIDES AND WEEDICIDES

As in previous years we have been asked to medically examine men manufacturing and using many of these compounds. For example 37 pest control operators, frequently using arsenic, chlordane, dichloroethylene ether, Warfarin, Methyl Bromide and pyrethrins were medically examined. In no instance was their health adversely affected. Other men who intermittently used Dieldrin were also given a clean bill of health; the only symptom they complained of was headaches on hot days.

Arsenic

1. Exposures to arsenic during the manufacture of a sodium arsenite livestock dip were determined. The results were:—

Operations		Arsenic Concentrations milligrammes/c.m. of air
Shovelling and weighing powder	..	32.0
Tipping powder in tank and stirring	..	2.0
During Laboratory analysis	.. ..	0.2

This investigation was carried out because one employee was poisoned.

2. At the request of a Doctor in practice near the N.S.W./Queensland border, arsenic exposures during the spraying of weeds in a banana plantation, were carried out. Breathing Zone Concentrations were below the M.A.C. of 0.5 milligrammes/c.m. both during power and knapsack spraying.

Organic Phosphate Insecticides

Two men developed signs and symptoms of poisoning from organic phosphorous insecticides when using Diazinon and Dipterex during insecticides trials for the control of the Scarab beetle grub (*Othionius batesii*). It was, unfortunately, not possible to determine their blood cholinesterase levels.

MISCELLANEOUS CHEMICALS

Cyanide

Two factories engaged in case hardening by the cyanide method were visited and the necessary safety precautions discussed. At one factory, 5 out of 6 men complained of frequent attacks of sneezing; this was caused by the inhalation of sodium carbonate escaping from 2 unexhausted treatment pots. In view of the fact that these attacks frequently occurred while the men were carrying white hot articles, the matter was viewed seriously.

Large quantities of dust from the process referred to above collected from a nearby garden, in which it was alleged that the dust killed vegetation, was found to contain 50 per cent. sodium cyanide.

Fluorides

At the request of the Department of Labour and Industry a process in which aluminium was given a matte, or texture finish, by etching in a solution of ammonium bifluoride, was inspected. The men were exposed to concentrations of 1.9 m.g.m. of ammonium bifluoride per c.m. of air; although they complained of upper respiratory irritation abnormalities were not detectable. We recommended the fitting of a local exhaust system to the etching tank from which the mist was escaping.

DUST

Silicosis Dust

Workmen's Compensation (Silicosis) Committee — In New South Wales the medical authority for this disease is the Workmen's Compensation (Silicosis) Committee. Dr. Longley, one of the Division's medical officers also holds the appointment of Medical Officer of this Committee. Such an arrangement is a good one as it ensures an effective liaison between the two bodies.

The Committee relies upon the Division to carry out such investigations as are necessary for it to assess whether or not applicants for a Silicosis Pension have been significantly exposed to silica dust; such investigations are requested only in those instances where an element of doubt arises. During the year we carried out, on behalf of the Committee, investigations in one large factory because between 1954-1958 twenty employees carrying demolishing and repair work on furnaces at a steel works had been diagnosed as silicotics.

The following extracts from Mr. Jones report are of interest and show, once again, how modern day methods can remove hazards at their source:—

“ From general discussions it was ascertained that furnace design and materials of construction have changed gradually over the years. This applies to a certain extent also to demolishing and rebuilding techniques.

For instance, twenty years ago the furnaces were 60 per cent. silica brick construction. Silica bricks were then used in the end walls, arches, flues, etc., and the only basic brickwork was in the rear and front walls. From this the silica brick content has been gradually reduced to its present day 20 per cent. of the total, with the remainder basic and fireclay.

In that period furnace design has also been standardised; this has permitted the use of preshaped bricks. In the past quite a lot of cutting of bricks was done to construct arches, etc., and also to carry out furnace modifications. At the present time very little brick breaking and cutting is done and there should be none as bricks are now preshaped for the whole furnace as required for arches, roofs, etc. Any present day modification of arches is carried out with silica bricks preshaped in manufacture to suit the modification.

Any brick cutting nowadays is confined to knocking the end or corner off the odd brick and occupies a very small amount of time.

Repair of silica brickwork in the past required the use of a finely divided silica cement. This was mixed near the furnace slag pockets and was a fairly dusty operation. This is now supplied in the form of a wet slurry by the refractories firm that supplies the silica bricks. Roof bricks are laid dry as far as possible and little mortar is used there.

Before the inception of the Eimco loaders, the slag pockets were cleaned out by hand. This included knocking down brickwork sides and removal of debris in pockets. Hosing was carried out throughout this work. It used to take 4-5 days then; using hammers, bars and shovels. With the Eimco loaders this work has been reduced to 8-16 hours”

SILICATES

Limpet Spraying

Due to the increasing industrial use of asbestos it was decided to carry out comparative tests using both the midget impinger and the thermal precipitator during the “Limpet” spraying of asbestos. Because we have frequently been requested for our results I propose to quote in full Mr. Whaite’s report on this matter:—

“ Four tests each of seven or eight minutes duration, were made on a scaffold ten feet high in an unconfined space, where the concentrations might conceivably be low.

The impinger counts were carried out using a Zeiss microscope fitted with a 10X, 0.3NA objective and 15X eyepieces. A Spencer bright-line haemocytometer was used as the counting chamber. Both fibres and non-fibres were counted down to the limit of resolution (about one micron), but obvious non-fibres over about five microns diameter were rejected on account of their unlikelihood to cause pneumoconiosis. Near the limit of resolution, it was difficult to discriminate between short fibres and non-fibres.

The thermal precipitator counts were made using the same microscope with a 90X, 1.25NA objective and 10X eyepieces, having a graticule consisting of ½-millimetre squares in one eyepiece. Again both fibres and non-fibres were counted down to the limit of resolution (in this case, ¼ to ½ micron), and the non-fibres over five microns were rejected.

On comparing these counts, which are given in the attached table, it will be seen that those by thermal precipitator are considerably higher than those by midget impinger, ranging from 12 to 49 times for total counts, and from 10 to 113 times for fibre counts. Because of this disparity, the writer made further thermal precipitator counts, this time on a restricted size of asbestos fibre, viz. 20 to 50 microns, which is the range considered most likely to cause asbestos. The results were of the same order as the fibre counts by impinger — all being under 100 particles per c.c.— but there was no obvious correlation between the two sets of figures.

In a letter received by the Director from H.M. Factory Inspectorate in London, dated 7th September, 1957, the opinion was expressed that ‘the standard impinger technique is inclined to give rather high results’, apparently compared to the thermal precipitator. Our results given above do not support that opinion.

Finally, mention might be made of certain ‘Limpet’ spraying tests carried out by the British Factory Department and detailed in a report dated 17th March, 1959. Both asbestos and cement concentrations by thermal precipitator are given. In terms of total (asbestos plus cement) and fibre (asbestos) counts these ranged from about 1,130 to 12,300 and from about 50 to 480 particles per c.c. respectively near the workman operating the spray. Our corresponding figures were 1,040 to 8,460 and 290 to 4,000 particles per c.c. It will be noticed that our fibre counts were significantly higher than the British ones despite the similarity of the process. Possibly a higher proportion of asbestos was used for the spraying of the ventilating ducts here than for the spraying of the ceiling carried out in the British tests, and this was a contributing factor.”

Test No.	Nature of Work	Counts by Midget Impinger				Counts by Thermal Precipitator		
		Million Particles Per Cubic Foot		Particles Per c.c.		Particles Per c.c.		
		Total	Fibre	Total	Fibre	Total	Fibre	Fibre
1	15 Square Feet of Duct. Walls sprayed in eight minutes	2.7	0.9	85	30	1,040	290	20-50 Microns 15
2	10 Square Feet of Duct. Walls sprayed in eight minutes	3.2	1.0	110	35	4,620	1,780	50
3	12 Square Feet of Duct. Walls sprayed in seven minutes	3.0	0.7	105	20	5,200	2,260	65
4	10 Square Feet of Top and one wall of duct sprayed in seven minutes. Workman subjected to rebound . .	5.0	1.4	175	50	8,460	4,000	85

All of the above tests were taken at one factory. Similar details can be supplied for an additional five factories; these tests include “open air” and “confined space work”.

DERMATITIS

Epoxy Resins

1. The use of these adhesives in industry is steadily increasing; because of their versatility this is to be expected. Unfortunately, in many instances, neither management nor men realise the extent of the potential dermatitis hazard; in many instances the material is used without adequate precautions and the result is frequently severe dermatitis.

In one factory visited, 3 employees, out of a total of 4, engaged in glueing together parts of fishing rods were badly affected. At another large modern factory, almost a hundred female employees, all making small electrical components, were affected at varying times of the year. Breathing zone triethylene tetramine concentrations were determined and as these were extremely small it was apparent that the cause of the trouble was direct skin contact. At a third factory, an epoxy resin was used to cement coloured glass sheets over aluminium honeycomb during the manufacture of decorative doors. Two out of 3 employees developed a severe dermatitis affecting the hands, forearms and face; in this instance we considered (see table below) that vapourisation was also an important factor.

Operation	Triethylene Tetramine concentrations in Breathing Zone	
	Milligrams per c.m. of air	
Weighing and mixing of the resin mix ..	0.16	
Application of the resin mix to glass ..	0.03	

Formaldehyde Resin

2. One large, and new, factory using large quantities of formaldehyde resin, invited us to inspect their plant because of a high incidence of skin trouble; 27 out of 83 employees, had either a severe, or moderately severe dermatitis at the time of our visit. Four of these workers also complained of asthmatic symptoms — nobody in this latter group had been so affected prior to commencing duties at this factory.

In no section of the plant were the phenol in air concentrations above the recommended maximum allowable concentration of 19 mgm. per c.m.; formalin concentrations, on the other hand, were frequently high — for example 12 mgm. per c.m. of air in the vicinity of the core varnish trolley; 70 on top of the infra red drying machine, 10 at the press operator's platform during the "heat up cycle".

Although the factory was very modern, and of a very high standard as far as design and general construction were concerned, few of the machines were adequately locally exhausted. In addition air movements were very sluggish in many internal rooms. Apart from advice aimed at correcting the defects first discussed, detailed recommendations were made concerning good working techniques, use of protective clothing, and barrier creams, etc.

X-RAYS AND RADIOACTIVE SUBSTANCES

During the year Messrs. Whaite and Foskett, Divisional Scientific Officers, attended the course on Nuclear Reactor Engineering at the University of N.S.W.

During the year, partly consequential to the purchase of new apparatus and partly due to an increasing public awareness of the importance of avoiding excessive or unnecessary radiation, this aspect of the Division's activities has increased.

Most investigations have, up to date, been concerned with the medical use of X-ray machines and industrial applications of radioactive isotopes.

1. *Diagnostic Radiology*

Hospitals — Measurements were made in 2 institutions. In one, the radiologist received dose rates up to 50 mr per hour when using a unit at 90 KV and 3 mA. The main contributing factors were (a) the use of too large a screen, (b) the inaccessibility of the latter — because of this the operator had to lean across a source of scatter radiation, and (c) gaps between the metal framework of the screen, the shutter and lead rubber curtain.

Dental X-rays — "A Survey of Radiation Exposure in 60 Dental Suites in the City of Sydney" was completed; full details of Mr. Foskett's work may be found in the August, 1958, issue of the Australian Dental Journal (Volume 3, Number 4, pages 209-214). In general, dose rates were well within the limits currently recommended by International Authorities.

Veterinary Surgeons — During the last few weeks of the year a survey of Veterinary Radiological practices was commenced.

Measurements taken at the Veterinary School of the University of Sydney, showed that, on the basis of 20 exposures of large animals and a similar number for small animals per week, weekly doses would be as follows if no protective clothing were worn:—

Area		mr.
Dose to hands of Attendant ..	..	Up to 3,000
Dose to body of Attendant ..	..	25
Dose to body of Radiographer ..	..	Less than 10

The machine tested was a Konrad 30, and techniques used involved 65-80 KV, 30 mA, 0.75 second exposures for horses and 55 KV, 30 mA, 0.5 second exposure for dogs, with fixed focal distances of 30-in. in each case.

Shoe Fitting X-ray Fluoroscopes — The results of a large survey carried out by Mr. Whaite and myself have been recorded in the Medical Journal of Australia (31st May, 1958).

2. Industrial Radiography

The following installations were inspected:—

- (a) 3 Philip's Industrial Fluoroscopes — used for the examination of Trailing Cables at 2 State coal mines.
- (b) 2 mobile X-ray units — used at a ship building yard to examine castings. Unlike (c) all of the foregoing 5 units were satisfactory.
- (c) Machinists working in the immediate vicinity of 2 X-ray units, operating at 260 KV, were receiving scatter radiation amounting to between 100 and 140 mr per hour. An average of 12 pictures were taken per day.

Because of the nature of the building housing the X-ray unit, the nearness of the machine shop and store rooms, we reported to management that we regarded the present X-ray room as unsuitable for regular radiographic procedures.

3. Industrial Uses of Radioactive Isotopes

The following have been investigated and reported upon:—

- (a) Depth control of coal levels in feeding hoppers at a coal cleaning plant by means of two 10 millicurie Cobalt-60 sources.
- (b) The use of a 50 mc Cobalt-60 source in a large food factory; this was being used for research into the effects of gamma radiation in Wheaten products.
- (c) A 20 millicurie source of Caesium-137 is used by the N.S.W. Forestry Commission to assess the extent of "pipes and hollows" inside timber poles.
- (d) The use of two Iridium-192 sources by a large engineering factory to examine Pipe Welds.

All were being safely used.

- (e) One firm of industrial Radiographers was using 3 curies of Iridium-192, housed in an end type lead container, for radiographic examination of welds during the construction of large petrol storage tanks. The source accidentally dropped into the tank and nearby residents and workmen were alarmed when it was necessary to drain more than a million gallons of water from the tank in order to recover the source. They feared that the water would be radioactive; this episode illustrates how important it is for workmen to be properly informed about the nature of materials they are using.

4. Naturally Occurring Radioactive Materials

(a) Radium — In the 1956 Annual Report of the Chief Inspector of Factories in Great Britain, attention was drawn to the frequent recurrence of radioactive dust particles in the air of luminising establishments. Their presence had been detected by close examination of film badges for evidence of "spotting". To assess conditions in local dial painting rooms, similar tests were carried out in 3 factories. In one instance "spotting" was detected; this was traced to the practice of scraping old paint from instruments during their reconditioning over a bench which had no associated local exhaust system.

(b) Thorium — (1) The use of above in the manufacture of incandescent gas mantles was investigated at one Sydney factory. From calculations it appeared that the dosage rate to the hands, as a result of soaking the mantle material in the thorium nitrate — cerium nitrate solution, was in the order of 10 mr per hour. A concentration of thoron and its daughters was found which was equivalent to 3.2 disintegrations per second per cubic foot of air. This is 3 per cent. of the permitted amount.

(2) Similar investigations were carried out at a factory where thorium oxide is used in the manufacture of a certain type of ceramic dielectric. The disintegration rate per second was 105.

NOISE

As stated in my last Annual Report the Division is becoming increasingly interested and active in the problem of industrial noise. This year we have investigated fifteen problems; in 1957 the corresponding number was two.

These investigations have been carried out in offices, factories and residential areas adjacent to industrial premises.

Brief details are as follows:—

(1) Offices:—

Recommendations were made to reduce noise resulting from —

- (a) The use of punch card machines.
- (b) The sheet metal department situated very close to one large office.
- (c) Passing city traffic.

(2) Factories:—

- (a) Noise intensity was dangerously high in a shoe factory; this mainly resulted from the beam presses used to stamp out leather heels and soles.
- (b) Extensive investigations were carried out in a carpentry and Joinery shop.
- (c) In a large Sydney Tobacco factory considerable annoyance was being caused to employees working near an air compressor and from the fans of an air conditioning system.
- (d) Noise intensity readings were taken in a motor car assembly plant at the various individual processes.
- (e) Readings were taken in the vicinity of a glass annealing chamber.

(3) Complaints Involving Residential Areas:—

The alleged nuisances resulted from the operation of a panel beating shop, a confectionery manufacturing plant, a non-ferrous foundry and from rivetting in a light marine engineering factory.

Further meetings of the Occupational Deafness Committee have been held during the year and discussions have taken place as to the desirability and need for "Noise Regulations". It has been suggested that — "If the noise level to which a person is exposed is ninety decibels or over, a hearing conservation programme involving noise analysis, noise reduction, hearing testing and ear protection should be instituted." I consider that the above proposal, although representing the ideal, is not industrially practical or desirable at this stage of the State's development.

If legislation is desirable then I consider that for the present little more is required than legislative authority:—

- (1) To test the hearing of those employees significantly exposed to noise during working hours.
- (2) To require employers to provide ear defenders and for the employees to wear them.

PRINTING INDUSTRY

Asthma Due to the Use of Anti-setoff Spray

During the year five factories were visited where this material is used. Anti-setoff is a solution of gum acacia in ethyl alcohol used for fixing wet print to prevent smearing by the next sheet added to the pile. Gum acacia is a well known allergin and in some instances it is possible to substitute Dextrose thereby eradicating the hazard.

Five out of 30 employees medically examined were suffering from asthma; four of these people believed that their chest condition was due to, or at least made worse by, the inhalation of the anti-setoff mist. Only one of these five men had a positive patch test to gum acacia. Alcohol concentrations were usually about 150-200 p.p.m.

In another factory an acetone-dexterine-water mixture was used; breathing zone concentrations of acetone were 75 p.p.m.

WELDING

During the year we have investigated many complaints concerning alleged health hazards from welding. In spite of the large amount of welding carried out in every country of the world, and the enormous numbers of people involved, current industrial literature contains but few records of new cases of illness from this cause. It is true to say that in most instances, modern day welding techniques and methods, are very safe provided common sense precautions are taken. However, like in many other fields manufacturers are constantly bringing out new methods and, to some extent, one can understand why and how some of the fears frequently expressed by the workers, originate.

A process which has caused welders a great deal of concern during the year is known as "Low Hydrogen Welding". Many are firmly convinced that it is particularly hazardous. Up to date it has not been possible clinically to confirm these suspicions. 38 men working in 4 factories were examined and the incidence of signs and symptoms compared with figures quoted by English colleagues for other types of welding (A. T. Doig and L. N. Duguid, "Health of Welders, 1956"). From the following figures it will be seen that "low hydrogen welding" compares favourably:—

	Low Hydrogen Welding (Australia)	Other Types of Welding (U.K.)
	per cent.	per cent.
Nasal irritation	36	35
Cough	21	51
Other Respiratory Symptoms	36	60

Doig and Duguid's percentage relate to 247 welders.

The following table summarises the results of tests carried out by the Division:—

Results of Tests on Low Hydrogen Welding

Type of Rod	Operation	Fluoride Concentration mg. Cubic Meter		Nitrous Fumes	Total Fume Concentration mg. Cubic Meter
		Soxhlet	Impinger		
L.H. 70	(a) Mild steel—confined space	2.7	..	Not estimated	33.2
L.H. 70	(b) Steel bars—reasonable ventilation	0.23	0.23	Not estimated	23.4
Jetweld Rod	Mild steel—confined space	0.09	..	Not estimated	38.4
8 Gauge Multicraft (Samples taken inside welder's helmet).	(a) Welding beneath loco frame	0.46	Not done	Not estimated	Not done
8 Gauge Multicraft (Samples taken inside welder's helmet).	(b) Various welding on underframes	0.046	Not done	Not estimated	Not done
8 Gauge Multicraft (Samples taken inside welder's helmet).	(c) Welding side frame on floor	0.04	..	..	Not done
8 Gauge Multicraft (Samples taken inside welder's helmet).	(d) Welding sideframes on trestles	0.03	..	..	Not done
8 Gauge Multicraft (Samples taken inside welder's helmet).	(e) Welding underframe drawhead .. ..	....	..	..	Not done

ELECTROPLATING

The survey commenced last year, of this industry, was completed. A total of 21 factories were visited in various cities and towns in N.S.W. This investigation was carried out for the purpose of:—

(A) Assessing the nature of working conditions in this industry.

(B) To form an opinion as to the need, or otherwise, of “Electroplating Regulations” in N.S.W.

In a report to the Chief Inspector of Factories I said:—

“(1) The majority of the large electroplating Departments, or factories probably have, in the main, reasonable standards.

(2) Conditions in most of the small, often “back yard”, electroplaters are very poor and employees are frequently unnecessarily exposed to potential health risks.

The requirements of the existing Electroplating Regulations (gazetted, 1942), are such that even if complied with they would effect little improvement in general working conditions.

(3) There is a need for Electroplating Regulations; whereas it is realised that much can be achieved by friendly guidance given either by factory inspectors or by the appropriate employer organisations, I consider that the quickest way to achieve a substantial raising of the standard of working conditions in this trade is by means previously suggested. Should it be agreed that “Electroplating Regulations” would serve a useful purpose I consider that they should be drawn up in such a way to:—

(a) Improve the general factory layout, *i.e.*, adequate working space, drained floors, etc.

(b) Require adequate amenities. In my opinion, the standard should be stricter than that used in assessing requirements for the “average” factory; a standard akin to that used in the Lead Regulations might be a suitable one to consider.

(c) Require safeguard against certain clearly defined health hazards

Detailed recommendations were then made; these closely follow the major requirements of the British Chromium Plating Regulations 1931. However, due to the recent introduction of surface active agents, to reduce the quantity of mist formed in chromium plating, my report also stated that the main supplier of such compounds provides purchasers “..... with a sheet of instructions dealing with, amongst other things, a way to test the bath to determine whether or not the correct quantity of Zeromist is present. The method may be beyond the technical ability of certain electroplating operators and accordingly the supplier has instituted a free service whereby he will test the contents of any bath if samples are submitted. Accordingly, I recommend that Zeromist (and other similar compounds) be accepted as a satisfactory substitute for an efficient local exhaust system if:—

(i) The effectiveness of the compound has been proved satisfactory by field tests carried out by the Division of Industrial Hygiene.

- (ii) An approved person tests the tank once every six months in the manner recommended. He must record the results of the test in some permanent form kept available for the inspector to see. Each firm must apply to have an "approved" person appointed if they want to use Zeromist instead of a slot exhaust system. An approved person could be either:—
- (a) A chemist working for the firm.
 - (b) Any other employee of the firm regarded as being "suitable" by the Chief Inspector of Factories.
 - (c) An outside qualified chemist including a chemist working for the main suppliers.
 - (d) An Officer of the Division of Industrial Hygiene.

The Chief Inspector should have the authority to:—

- (a) Require tank testing at more frequent intervals than six months if he thinks it necessary.
- (b) Require testing to be carried out within a given specified period (in the event of an inspector considering this is urgently needed)"

MISCELLANEOUS INVESTIGATION

Under this heading a very long list could be given; the following few are quoted to illustrate the variety of problems referred to the Division:—

- (a) The use of suitable protective clothing, against injuries from implosions, for operators manufacturing the picture tubes for television sets.
- (b) Dangers to the eyes from the use of infra red lamps used to heat the metal skin on aeroplanes, during the process of rivetting.
- (c) At the request of the Metropolitan Medical Officer of Health, tests were taken to compare the ventilation of inner rooms of residences, with different open window conditions on an adjoining verandah. The present building ordinance requires the amount of permanent openings to be one $\frac{1}{5}$ th of the verandah's floor area; a suggestion had been advanced that this fraction be reduced to $\frac{1}{20}$ th. Our tests indicated, but did not prove, that the reduction in fresh air intake did not appear to be proportional to the reduction in the area of the openings. For example, decreasing the window area to one third, reduced the fresh air intake by only 0.55, as measured by anemometer and to 0.77, as measured by carbon dioxide concentration.
- (d) Excessive Temperatures — The Division is frequently asked to pass an opinion upon varying industrial processes where the employees consider that they are exposed to excessively high temperatures. In such investigations we usually use the index for evaluating heat stress in terms of resulting physiological strains as described in the August, 1955, issue of Heating, Piping and Air Conditioning (by H. S. Belding and T. F. Hatch). During the year we investigated heat exposures in the spider and rotogravure rooms of a large printing works. Several of our measurements proved working conditions to be at the upper limit of comfort.

ATMOSPHERIC POLLUTION

GENERAL

In March of this year the final report of the Smoke Abatement Committee, established by the Minister for Local Government in 1955, was tabled in the State Parliament. The Committee recommended a complete revision of legislation dealing with air pollution including a new Act to be based largely on the Alkali and Works and Clean Air Acts of Great Britain. It was also recommended that a special scientific organisation should be formed in the Health Department to implement the more technical provisions of the Act and to be responsible for air pollution research and control generally. At the time of writing, a special cabinet minute is in the course of preparation concerning the implementation of the Committee's recommendations.

Until the matter is finally decided and an organisation established it is assumed that the Industrial Hygiene Division will continue to provide staff and facilities for the investigation of problems. Actual specific investigations continued during 1958 on approximately the same scale as previous years but the routine monitoring programme was considerably expanded particularly in connection with smoke and sulphur dioxide measurements. It is considered that this aspect is probably one of the most useful functions the Division can perform at the present time. Without such information it will not be possible to gauge the severity of the problems to be solved when the means are available or to assess progress from any future control measures.

As foreshadowed in the 1957 report an additional scientific officer specifically for air pollution work was appointed during 1958. A laboratory assistant also commenced duties during the year mainly to carry out the analysis of deposit gauge and other routine samples. This now means that two graduate officers and one assistant are employed full-time on air pollution studies, but, although this is quite a recent development, it is clear that further expansion in the near future will be necessary.

MONITORING STATIONS

Deposit Gauges

The results of the dust-fall measurements carried out in Sydney and Newcastle during 1958 are shown in Tables 2.1 and 2.2. Owing to staff difficulties it was not possible to resume measurements in the Port Kembla-Wollongong area until very late in the year and no useful results, other than those obtained in 1954-1955, are yet available. However, it is anticipated that the survey in that area will be re-established on a somewhat larger scale than previously in the early part of 1959.

At several points in Sydney and Newcastle deposit gauge measurements have been in progress since the latter part of 1953 and in some cases upward or downward trends are evident. Figure 2.1 shows the mean dust-fall (water insoluble solids) values for Sydney and Newcastle during the five year period from the beginning of 1954 to the end of 1958. The Sydney values are calculated from all stations, which have been continuously monitored, within two miles radius of the city's central area. Newcastle represents the six points where continuous results are available, namely, Civic, Mayfield, Tighes Hill, Stockton, Broadmeadow and Kotara.

There has been an apparent overall reduction in the Sydney area, though the trend is not uniform. Only at Martin Place, Potts Point, Pyrmont and Rozelle have statistically significant reductions occurred. At Waterloo, Darlington and Darling Point the average readings in 1958 were lower than 1954 but the values did not meet the usual tests of statistical significance. The results in the Central Railway area were unchanged while George Street North and Paddington both showed some increase in dust-fall. At Newcastle, as the figure shows, the trend has been upward with the exception of the 1957 to 1958 period. Statistically significant increases have occurred at the Newcastle stations other than Stockton and Kotara, where in both cases the results are unchanged.

Sydney's reduction in grit and dust-fall is probably partly attributable to the lessening in production from the older electric power stations particularly White Bay and Pyrmont. The latter has virtually ceased to operate in recent years. It is more difficult to determine the reason for the increase in deposited pollution in Newcastle other than the possible effects of increased industrial production. There is a possibility that the fall which took place between 1957 and 1958 may have resulted from the installation of grit collecting equipment in the Broken Hill Proprietary Limited steelworks.

The seasonal results for the five year period for Sydney are shown in Table 2.3 and for Newcastle in 2.4. In the table the winter results include only June, July and August and the summer represents January, February and December. The most apparent seasonal factor is wind direction, which along the New South Wales coast is predominantly north-east in summer and west in winter. In Sydney the major centre of pollution is the Pyrmont-Ultimo area where there is no definite seasonal variation but most of the other stations vary between summer and winter depending upon their directional relation to that section. Generally, all positions east of Pyrmont-Ultimo are higher in winter and the reverse applies to those west of the area.

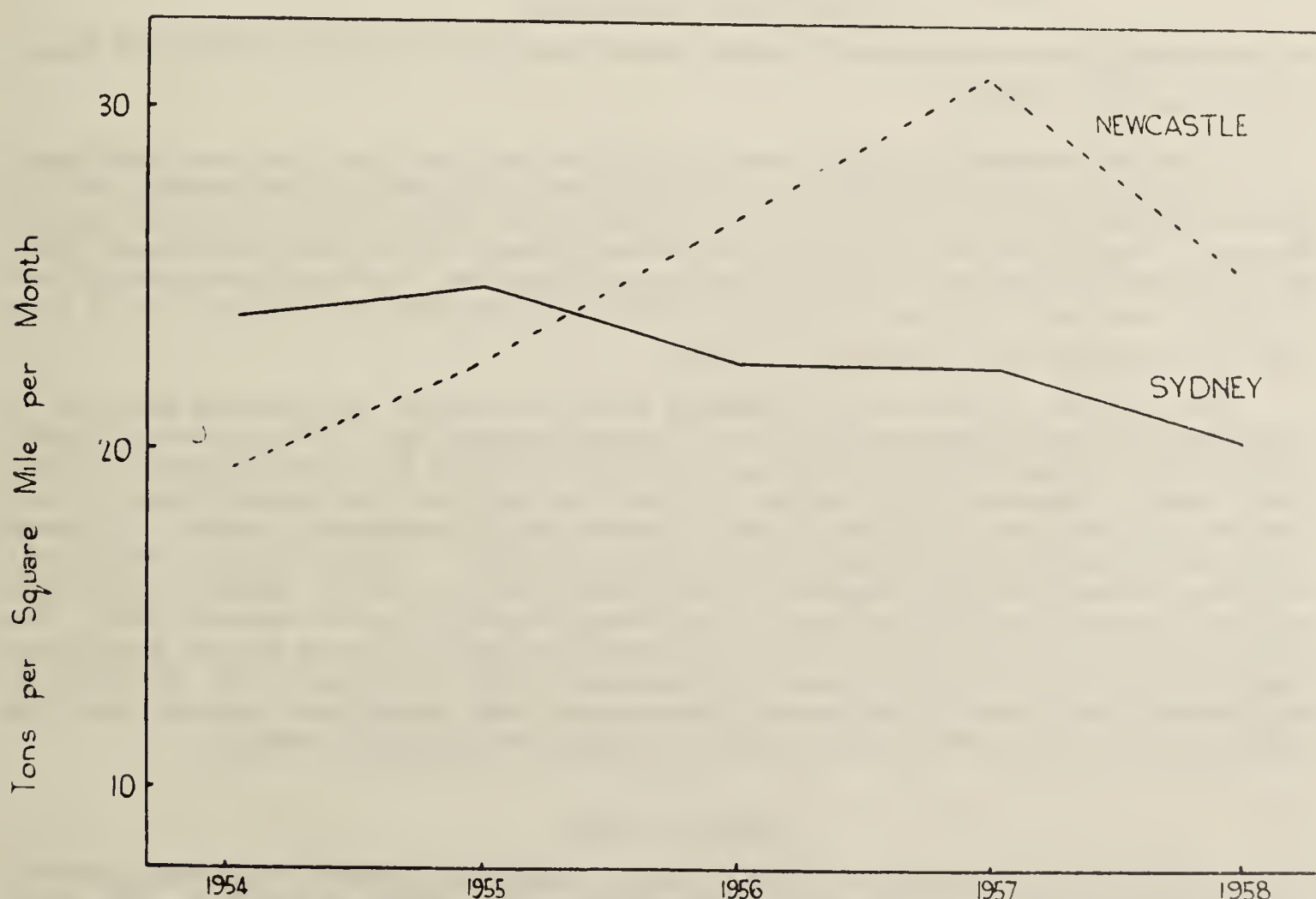


Fig. 2.1 — Deposited Pollution in Sydney and Newcastle

Newcastle is mainly affected by the heavy industries located on the coast, and shipping, and consequently deposited pollution is heavier in most parts in the summer north-east winds. The only Newcastle station which is east from the main pollution sources is Stockton, where the seasonal variation is opposite in phase to all other positions in the monitoring network.

Smoke Density Tests

The deposit gauge measures only material of relatively large size and weight. Particles finer than about ten microns tend to remain suspended indefinitely, being only removed from the atmosphere by such phenomena as impingement on surfaces, coagulation, or by acting as nuclei for water droplets. By number, the vast majority is suspended particles, falls into the range 0.1 to 1 microns. Because the size range is of the same order as light waves, the particles have the maximum absorption effect, and are thus responsible for the familiar smoke haze of urban localities.

Measurement of concentration of smoke particles requires slightly more complicated equipment than deposited matter. The most common procedure is to pass a measured volume of the atmosphere through a known area of filter paper. An assessment of the smoke density can then be obtained by the depth of colour of the stain produced on the paper. For a fifty cubic feet sample passed through a circle of one inch diameter the stain produced may vary from nil in clean areas through shades of grey to black in some industrial areas.

More difficulty is experienced in expressing smoke densities in suitable units than deposited matter. The commonest method is to relate the density produced by stains to the mass of suspended particles, usually as milligrammes or microgrammes per cubic meter. In normal urban atmospheres the quantity of suspended material usually ranges from about 0.1 milligramme (100 microgrammes) per cubic meter to about 1 milligramme (1,000 microgrammes per cubic meter). During extreme London "Smogs" concentrations of about four times higher than the latter figure may occur.

Unfortunately the mass coefficient varies very considerably according to locality, mainly because of the influence of large particles and differences in composition. However, under normal circumstances where smoke is derived from a large number of sources it is possible to derive a reasonably consistent correlation of mass with the filter paper stain provided the larger particles are separated. It is normally not possible to weigh the stains directly.

Another method of presentation of smoke density measurements is in the form of haze coefficients in coh units. In many ways this is preferable to expressing the results in mass units as the influence of large particles is negligible. The coh unit is thus more truly representative of the degree of light obscuration or smoke haze. The method of expression was first suggested by Hemeon and co-workers.

In calculating the haze coefficient the filter paper containing the smoke stain is placed in a photo-electric densitometer and the light transmission of the stained portion is measured in relation to clean paper set at 100 per cent. transmission. From this the optical density of the stain is obtained from —

$$\log_{10} \frac{\text{Transmission of clean paper}}{\text{Transmission of stained paper}}$$

As an example, if the transmission of a certain smoke stain were 50 per cent., the optical density would be $\log \frac{100}{50} = 0.301$.

A coh unit represents an optical density of 0.01 thus the hypothetical stain would correspond to 30.1 coh units. It is then necessary to relate this figure to the quantity of air sampled, and it is usual to calculate this in terms of the length of the column of air, or linear feet, which passed through the paper. In most cases this will range from about one thousand feet to about five thousand. Thus the finished result is expressed in coh units per thousand linear feet. In the previous example if the number of linear feet which passed through the paper had been 5,000 the final result would have been $\frac{30.1}{5}$ or 6.0 coh units per thousand linear feet.

The coh unit was first used in Pittsburgh where one coh unit per thousand linear feet is considered to be a clear pleasant day and ten a disagreeable smoggy day. In the city area of Sydney average smoke readings vary from about one coh unit per thousand linear feet in summer to about four in winter. Occasional daily readings of eight to ten coh units per thousand linear feet are obtained and hourly smoke densities in excess of twelve are not uncommon in Sydney. The latter results are obtained from an automatic self-changing smoke filter. Detailed results of smoke tests in Sydney, Newcastle and Port Kembla are given in Tables 2.5, 2.6 and 2.7. Figure 2.2 shows the seasonal variation during 1958 and figure 2.3 the di-urnal variation of smoke density in 1958. The reasons for the high concentrations in winter are probably related to the more frequent temperature inversions which occur during that season in conjunction with the greater use of fuel. Similarly, the high morning peak would be the result of commencing daily activity also combined with the temperature inversions which usually take place in the night and early part of the day.

Sulphur Dioxide

From the viewpoint of air pollution sulphur dioxide has attracted considerable attention in recent years particularly following air pollution disasters in London and elsewhere. The gas is a powerful respiratory irritant affecting the upper and bronchial sections and in high concentrations the gas causes immediate irritation.

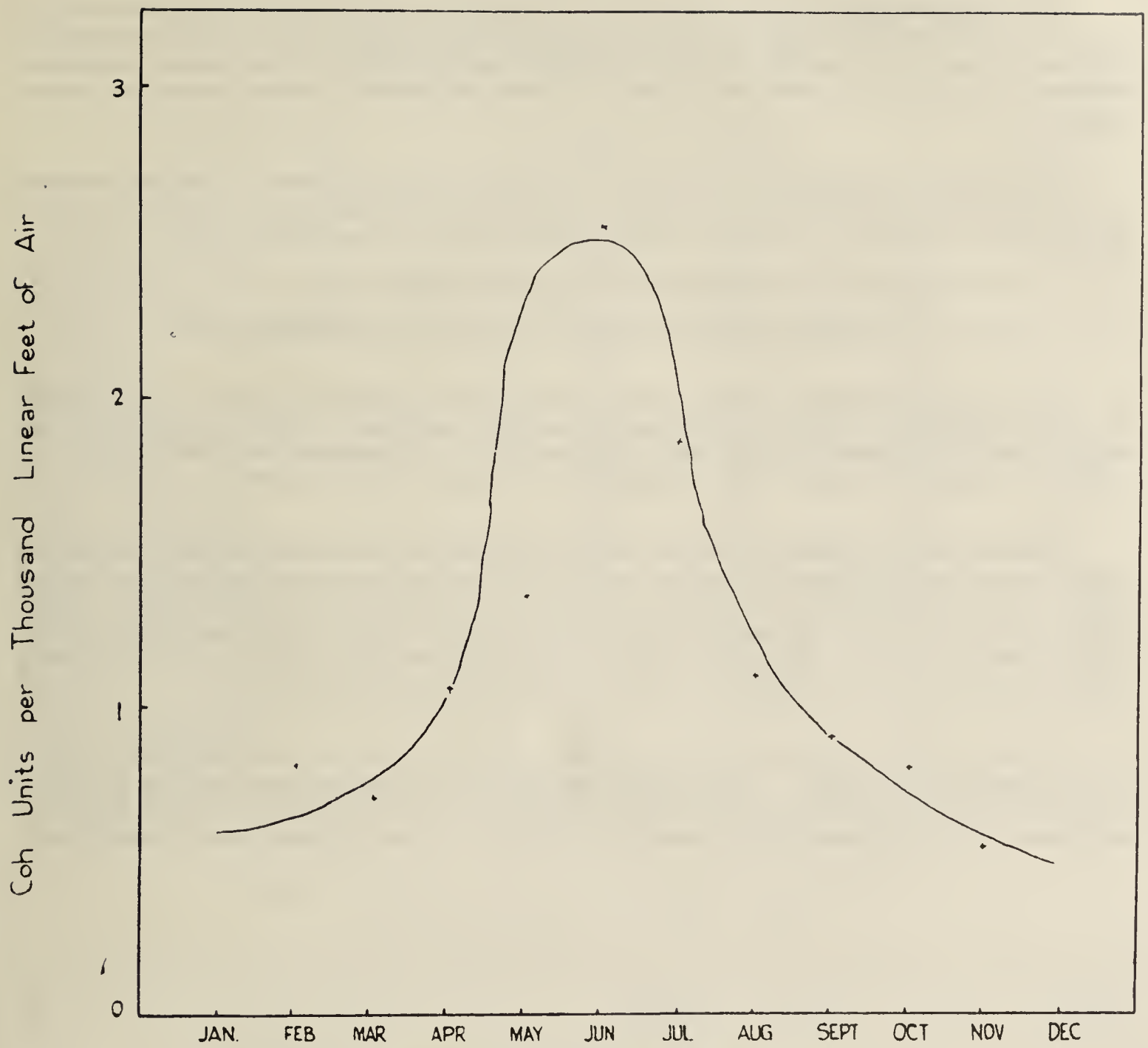


Fig. 2.2 — Monthly Variation of Smoke Density in Sydney

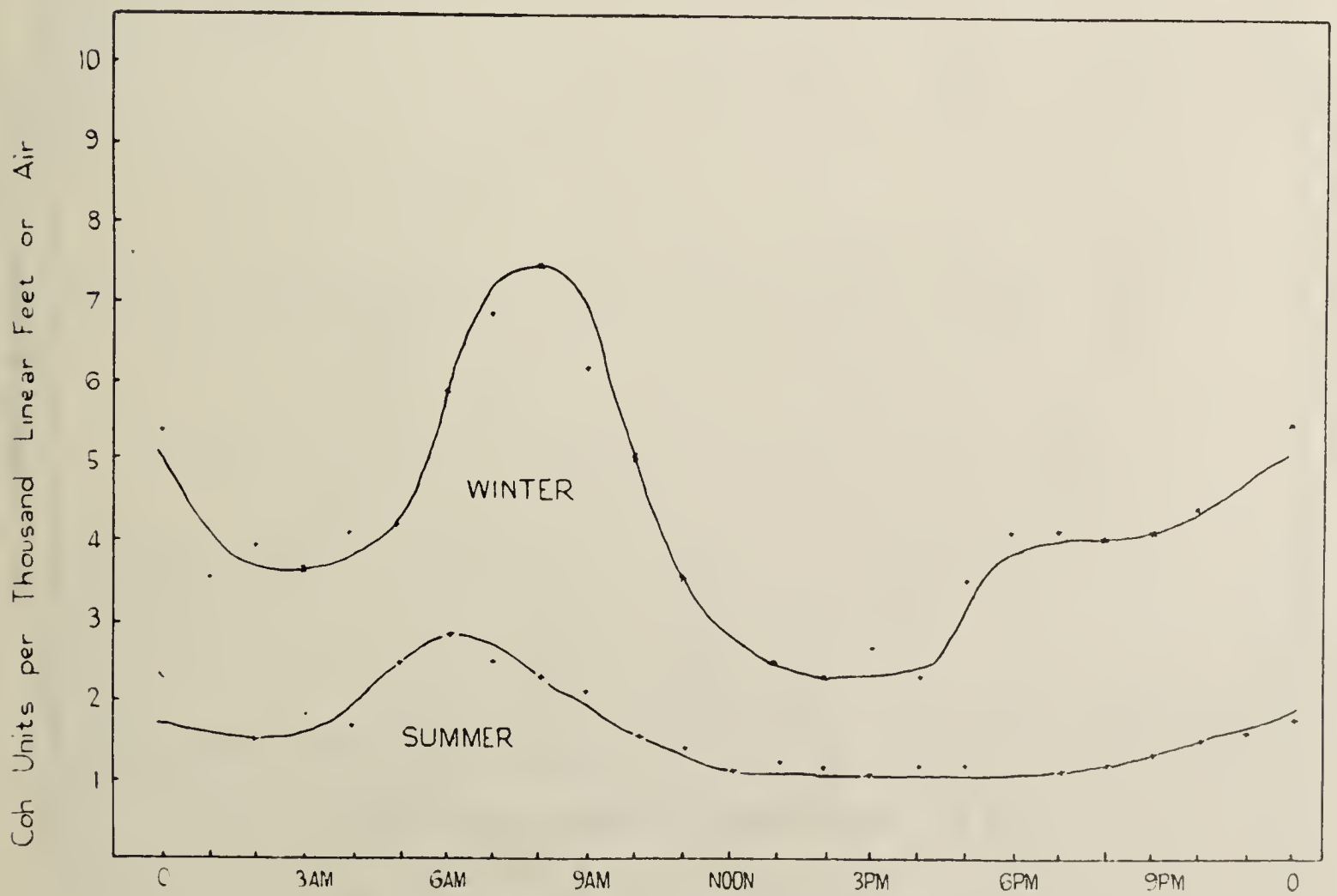


Fig. 2.3 — Mean Diurnal Smoke Density Variation, 1958

It is usually considered safe for industrial workers to be exposed to concentrations not exceeding 10 parts per million for an eight hour day, although it is not uncommon for plant personnel to withstand 100 parts per million for short periods without marked effects. The minimum concentration detectable by odour is 2.5 parts per million. Ten parts per million produces immediate obvious irritation.

Even under conditions which existed in London in the 1952 disaster the highest recorded concentration of sulphur dioxide was 1.33 parts per million which would be an insignificant amount in many industrial works. Two factors which might explain this discrepancy are:—

- (1) More than one contributing factor in the air pollution, and
- (2) a more susceptible exposed population than the average industrial worker.

Measurement of sulphur dioxide is usually accomplished by passing a sample of the atmosphere through an absorbing solution and subsequently chemically analysing it. This is done on a routine basis in New South Wales, samples being collected daily. An automatic recorder is also used enabling a continuous analysis of the atmosphere to be made in certain cases.

Because the concentrations of sulphur dioxide normally found in the atmosphere are low it is usual to express results in parts per hundred million. In London the average concentration is about 11 parts per hundred million but on certain days of the year readings ten times higher occur. Sydney averages about 2 to 4 parts per hundred million and the highest readings are in the range of 8 to 10 parts per hundred million. The detailed daily sulphur dioxide readings for 1958 are shown in Tables 2.8 and 2.9 and the seasonal variation of sulphur dioxide is illustrated in figure 2.4

By the standards of many countries the sulphur dioxide values in New South Wales are low, with the exception of Port Kembla. This is partly attributable to a generally small sulphur content in local coals as well as more favourable atmospheric dispersion. This is particularly made evident by the absence of the high peaks which occur, for example, in London during "smog" conditions.

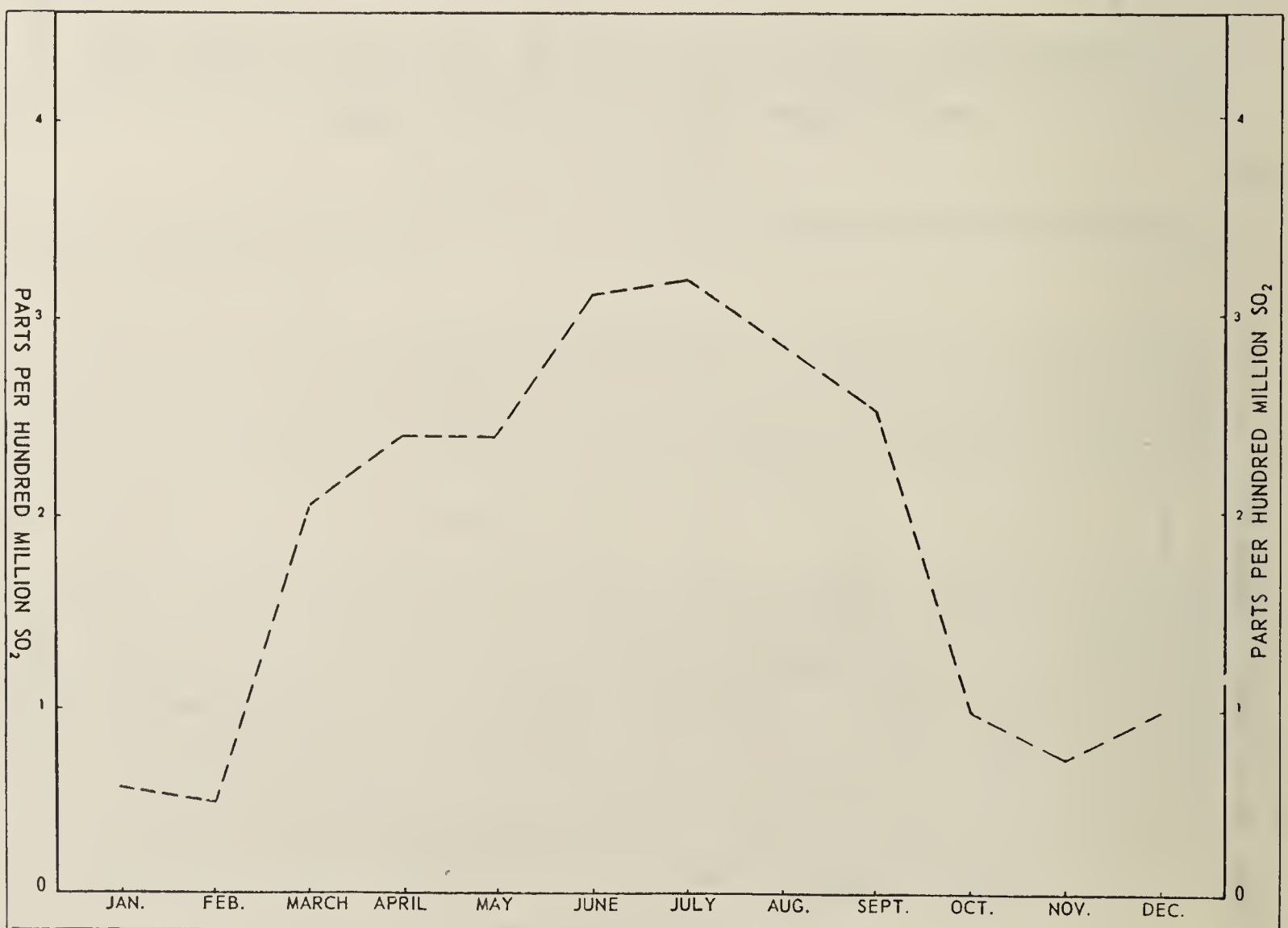


Fig. 2.4 — Monthly Variation of Sulphur Dioxide in Sydney

Table 2.1 — Sydney Metropolitan Area — Mean Deposit Gauge Results
Tons per Square Mile per Month — 1958

Location of Gauge				Water Insoluble Solids	Combustible Matter	Ash	Water Soluble Matter
City—Martin Place	..	..	..	22.9	6.4	16.5	7.1
City—Sydney Town Hall	..	..	..	20.2	4.8	15.4	9.6
City—George Street North	..	..	..	18.5	4.3	14.2	8.8
City—Potts Point	..	..	..	17.2	5.0	12.2	8.0
City—Central Railway Area	..	..	..	24.1	6.9	17.2	7.1
City—Pymont	..	..	..	38.4	9.9	28.5	9.0
City—Ultimo	..	..	..	19.2	5.4	13.8	8.1
City—Waterloo	..	..	..	14.7	4.6	10.1	7.3
City—Darlington	..	..	..	17.4	4.8	12.6	9.8
City—Paddington	..	..	..	21.4	5.6	15.8	10.2
City—Darlington Point	..	..	..	9.4	3.2	6.2	7.7
City—Rosebery	..	..	..	13.6	4.3	9.3	6.9
Rozelle 1—Quirk Street	..	..	..	17.6	5.5	12.1	5.8
Rozelle 2—Terry Street	..	..	..	51.9	23.2	28.7	10.3
Rozelle 3—Clubb Street	..	..	..	26.0	11.2	14.8	4.2
Rozelle 4—Callan Park	..	..	..	11.7	4.3	7.4	5.1
Balmain 1—Birchgrove Road	..	..	..	11.6	3.8	7.8	5.8
Balmain 2—High Street	..	..	..	13.6	5.1	8.5	4.3
Annandale—Johnston Street	..	..	..	11.4	3.5	7.9	5.3
Leichhardt—Macauley Street	..	..	..	11.2	3.3	7.9	5.1
Fivedock—Duke Avenue	..	..	..	7.4	3.4	4.0	4.8
Drummoyne—Cary Street	..	..	..	21.7	6.6	15.1	6.4
Mortlake—Turner Avenue	..	..	..	12.5	5.2	7.3	6.0
Rhodes—McIlwaine Park	..	..	..	17.5	7.3	10.2	7.8
Concord—Cabarita Park	..	..	..	18.8	8.6	10.2	8.2
Concord—Leigh Avenue	..	..	..	8.7	3.0	5.7	5.2

Table 2.2 — Newcastle Area — Mean Deposit Gauge Results
Tons per Square Mile per Month — 1958

Location of Gauge				Water Insoluble Solids	Ignition Loss	Ash	Water Soluble Matter
City Hall	..	..	..	18.5	7.1	11.4	19.9
Mayfield 1—St. Andrew's Church	..	..	..	22.6	9.7	12.9	12.3
Mayfield 2—Carrington Street	..	..	..	37.8	12.7	25.1	13.1
Mayfield 3—Ingall Street	..	..	..	45.9	14.4	31.5	15.2
Mayfield 4—Walsh Street	..	..	..	35.4	11.9	23.5	12.4
Tighes Hill	..	..	..	53.9	17.9	36.0	13.5
Stockton..	..	..	..	23.9	8.6	15.3	12.9
Broadmeadow	..	..	..	18.7	8.2	10.5	11.5
Kotara	..	..	..	12.1	6.4	5.7	9.3

Table 2.3 — Seasonal Variation of Deposit Gauge Measurements — Sydney Metropolitan Area
Tons per Square Mile per Month — 1954 to 1958

Station	1954		1955		1956		1957		1958	
	W	S	W	S	W	S	W	S	W	S
Martin Place	35.9	19.8	21.2	13.6	..	18.6	37.0	25.0	32.5	18.7
George Street	12.9	10.5	13.2	15.6	..	12.7	18.3	11.2	20.3	18.4
Potts Point	26.5	13.0	39.8	24.3	22.7	26.7	30.0	20.1	17.8	17.1
Central Railway	37.2	19.0	35.6	26.0	38.2	21.1	27.1	18.4	27.9	21.7
Pymont	59.5	49.2	34.5	41.8	36.7	33.4	33.1	38.3	35.5	44.0
Waterloo	15.7	16.1	12.7	19.9	10.3	20.7	11.8	20.0	11.6	20.2
Darlington	21.5	18.8	..	28.7	14.1	11.0	14.1	18.2	13.6	19.4
Paddington	21.5	11.9	23.7	12.9	25.8	26.2	19.8	21.4	20.0	21.6
Darling Point	18.7	6.7	12.0	7.2	12.3	9.3	14.9	8.2	9.3	10.6
Rozelle	26.5	24.1	15.3	21.1	18.7	24.9	17.9	24.7	16.3	23.4
Sydney Town Hall	..	..	..	..	..	..	25.8	15.1	25.0	20.6
Ultimo	..	..	..	..	..	..	16.9	22.3	16.6	24.7
Callan Park	..	..	..	..	..	..	11.2	21.8	9.9	14.9
Rosebery	12.9	13.8	8.7	15.4	10.1	12.8	13.8	16.0	..	15.8

W—Winter (June, July, August). S—Summer (January, February, December).

Table 2.4 — Seasonal Variation of Deposit Gauge Measurements — Newcastle Area
Tons per Square Mile per Month — 1954 to 1958

Station	1954		1955		1956		1957		1958	
	W	S	W	S	W	S	W	S	W	S
Civic	13.5	18.4	17.1	23.8	18.4	17.3	22.8	30.4	15.3	9.5
Mayfield	7.7	15.7	15.0	31.0	18.1	40.1	14.8	43.5	14.6	39.1
Tighes Hill	23.7	46.8	30.9	37.2	31.3	53.2	52.3	85.7	30.8	65.8
Stockton	22.6	23.6	32.7	11.5	35.0	13.7	40.1	13.7	27.2	22.7
Broadmeadow	13.6	16.4	8.3	15.2	13.8	13.9	17.3	23.3	11.8	20.5
Kotara	7.2	12.8	9.0	14.2	15.3	18.8	16.3	16.3	8.4	12.1

W—Winter (June, July, August). S—Summer (January, February, December).

Table 2.5 — Average Monthly Smoke Densities — Sydney Metropolitan Area
(Coh Units per 1,000 Linear Feet)

1958	Sydney Town Hall		George Street North		Redfern		Annandale		North Sydney		Balmain		Matraville	
	Avg.	Max.	Avg.	Max.	Avg.	Max.	Avg.	Max.	Avg.	Max.	Avg.	Max.	Avg.	Max.
January	1.0	1.8	0.9	1.5	0.7	1.4	..	..	..	..	..	..	..	..
February	1.7	3.4	1.3	2.0	1.3	2.2	..	..	..	..	..	..	..	..
March	1.1	2.2	..	..	1.3	2.1	1.7	2.9	..	..	..	..	..	..
April	1.6	4.3	..	..	1.5	2.3	1.4	4.1	0.6	0.7	..	..	..	..
May	2.0	3.3	1.9	2.1	2.4	3.5	1.8	4.5	0.7	1.5	1.0	2.6	1.0	2.6
June	2.8	4.8	1.8	3.6	2.7	4.8	1.9	4.6	1.1	1.7	1.6	3.2	1.1	3.3
July	2.2	4.5	1.6	2.4	2.4	3.5	1.8	3.6	1.0	1.7	1.3	2.3	1.6	3.0
August	1.6	3.0	1.5	3.5	2.1	2.7	1.4	3.0	0.9	1.7	1.1	2.2	1.0	2.5
September	1.4	2.8	1.3	2.0	1.7	2.7	1.3	2.7	1.1	1.9	1.0	1.7	0.9	2.5
October	1.3	2.4	1.3	2.2	1.7	2.5	1.0	2.3	1.1	2.1	0.7	1.5	0.7	2.3
November	0.9	1.9	1.0	1.6	1.0	2.0	0.9	1.9	0.9	1.1	0.7	1.8	0.6	2.2
December	0.8	2.0	0.9	1.6	0.9	2.7	0.8	1.7	1.0	1.5	0.7	1.2	0.5	2.2
Combined Average ..	1.5	..	1.4	..	1.6	..	1.4	..	0.9	..	1.0	..	0.9	..

Table 2.6—Average Monthly Smoke Densities—Newcastle Area
(Coh Units per 1,000 Linear Feet)

1958	Newcastle (City Hall)		East Mayfield	
	Average	Maximum	Average	Maximum
January	1.2	3.5	..	..
February .. .. .	..	..	..	..
March	2.3	3.9	..	..
April	2.0	6.2	..	..
May	3.5	5.9	2.1	3.2
June	1.7	5.0	2.6	4.0
July	2.2	4.2	2.2	3.7
August	1.8	3.7	2.2	3.8
September	1.6	2.9	1.7	3.0
October	1.5	2.7	1.6	2.5
November	1.3	2.9	1.5	3.6
December	0.9	3.3	1.1	2.7
Combined Average ..	1.8	..	1.9	..

Table 2.7—Average Monthly Smoke Densities—Port Kembla Area
(Coh Units per 1,000 Linear Feet)

1958	Military Road		Corner of Cowper and Parkes Streets		3rd Avenue		Jubilee Street		Corner of Flagstaff Road and Lake Heights Road		Terasooa Lane	
	Avg.	Max.	Avg.	Max.	Avg.	Max.	Avg.	Max.	Avg.	Max.	Avg.	Max.
April	0.8	2.2	0.4	0.8	0.6	1.5	..	..	..	..	..	..
May	2.0	2.5	0.3	0.5	2.5	3.2	..	..	..	..	..	..
June	0.7	2.3	0.6	1.8	0.5	1.8	..	..	..	..	..	..
July	0.7	1.8	0.5	1.4	0.4	1.2	..	..	..	..	..	..
August	1.1	3.0	0.7	2.0	0.5	1.2	..	..	..	..	..	..
September	1.1	2.2	0.8	1.6	0.7	1.5	..	..	..	..	..	..
October	0.7	1.7	0.6	1.6	0.6	1.7	..	..	..	..	..	..
November	1.0	3.1	0.7	1.9	0.6	1.4	0.9	1.9	0.6	1.2	..	..
December	0.5	3.9	0.2	1.0	0.3	1.2	0.4	1.6	0.3	2.1	0.5	0.9
Combined Average ..	1.0	..	0.5	..	0.7	..	0.7	..	0.5	..	0.5	..

Table 2.8—Average Monthly Sulphur Dioxide Concentration—Sydney Metropolitan Area
(Parts per Hundred Million)

1958				Sydney Town Hall		George Street North		Redfern Town Hall		Annandale		North Sydney		Balmain		Matraville	
				Avg.	Max.	Avg.	Max.	Avg.	Max.	Avg.	Max.	Avg.	Max.	Avg.	Max.	Avg.	Max.
January	..	..	..	..	..	0.01	0.02	..	..	..	..	..	..	..	..	..	..
February	..	..	..	..	..	0.02	0.02	..	..	..	..	..	..	..	..	..	..
March	..	..	..	1.7	5.3	..	..	0.6	1.4	0.6	1.2	..	..	..	..	..	..
April	..	..	..	2.3	3.8	..	..	0.8	1.4	0.6	1.2	0.02	0.03	..	..	..	..
May	..	..	..	2.3	3.7	1.9	2.3	1.2	2.3	0.8	1.4	0.1	0.6	0.4	1.3	0.4	1.6
June	..	..	..	3.1	6.2	2.9	6.8	1.9	3.6	1.1	3.4	0.6	1.3	2.0	3.9	1.1	3.9
July	..	..	..	3.2	5.5	2.9	6.8	1.9	3.2	1.3	2.8	0.7	3.0	1.7	4.5	2.3	4.0
August	..	..	..	2.9	5.2	1.5	2.7	2.1	3.2	1.3	3.2	0.4	1.4	1.2	3.4	0.7	1.8
September	..	..	..	2.5	4.2	1.4	3.6	1.5	2.9	1.1	3.0	0.5	2.6	0.8	3.4	0.9	2.1
October	..	..	..	1.1	3.4	2.5	5.3	1.2	4.6	0.8	1.6	0.3	1.3	0.7	2.8	0.7	3.7
November	..	..	..	0.8	3.1	5.5	9.2	1.9	3.2	1.3	2.1	1.0	2.6	1.3	2.8	1.4	3.0
December	..	..	..	1.1	3.5	5.7	8.8	1.5	3.5	1.1	1.7	1.1	2.0	1.6	3.1	1.1	3.3
Combined Average				2.1	..	2.4	..	1.5	..	1.0	..	0.5	..	1.2	..	1.1	..

Table 2.9—Average Monthly Sulphur Dioxide Concentration—Newcastle Area
(Parts per Hundred Million)

1958				Newcastle City Hall		East Mayfield	
				Average	Maximum	Average	Maximum
January	..	..	..	1.3	2.0	..	..
February	..	..	..	..	..	..	..
March	..	..	..	1.0	3.6	..	..
April	..	..	..	1.1	3.6	..	..
May	..	..	..	2.3	5.0	0.8	2.6
June	..	..	..	0.7	2.2	1.3	2.8
July	..	..	..	1.3	2.8	1.3	3.2
August	..	..	..	0.8	4.8	1.4	9.4
September	..	..	..	1.1	2.6	0.9	3.3
October	..	..	..	0.6	1.4	0.8	2.1
November	..	..	..	2.6	9.2	2.5	13.3
December	..	..	..	6.9	11.6	3.5	7.5
Combined Average				1.8	..	1.6	..

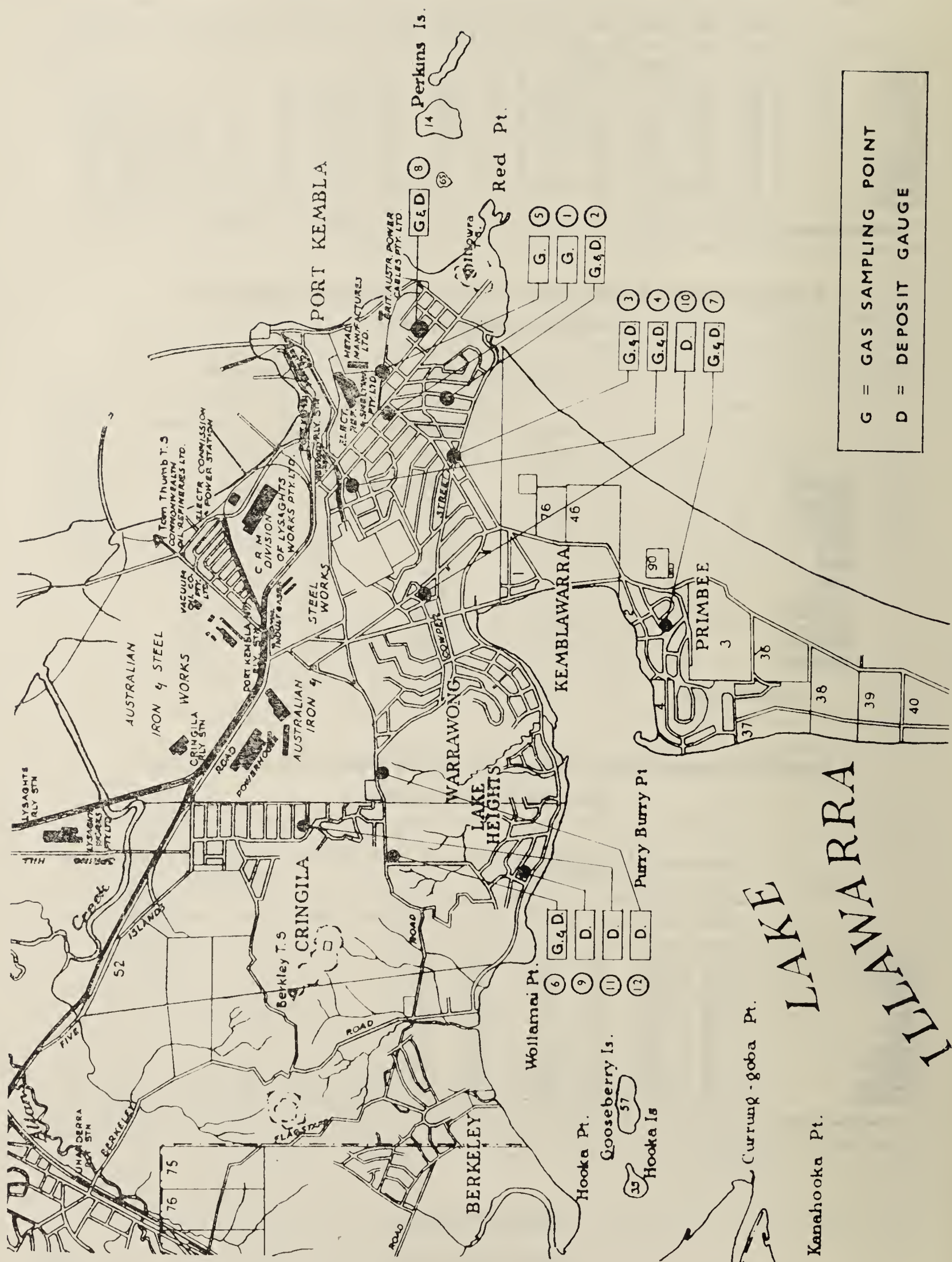
Table 2.10—Average Monthly Sulphur Dioxide Concentration—Port Kembla Area
(Parts per Hundred Million)

1958				Military Road		Corner of Cowper and Parkes Streets		3rd Avenue		Jubilee Street		Corner of Flagstaff Road and Lake Heights Road		Terasooa Lane	
				Avg.	Max.	Avg.	Max.	Avg.	Max.	Avg.	Max.	Avg.	Max.	Avg.	Max.
January	..	..	..	3.3	11.7	5.2	48.7	1.3	6.3	..	..	..	..	..	..
February	..	..	..	2.3	16.0	2.5	12.3	0.8	6.3	..	..	..	..	..	..
March	..	..	..	4.2	32.3	4.3	36.0	1.6	10.0	..	..	..	..	..	..
April	..	..	..	4.1	21.6	3.9	20.7	1.4	6.4	..	..	..	..	..	..
May	..	..	..	0.4	1.3	1.8	12.3	0.8	3.0	..	..	..	..	..	..
June	..	..	..	0.9	2.7	0.2	3.0	0.9	8.3	..	..	..	..	..	..
July	..	..	..	0.6	3.7	0.4	4.0	0.5	3.3	..	..	..	..	..	..
August	..	..	..	1.2	12.6	1.1	8.0	1.0	8.3	..	..	..	..	..	..
September	..	..	..	1.3	6.6	2.6	10.5	0.9	4.0	..	..	..	..	..	..
October	..	..	..	3.5	19.7	4.5	28.1	3.3	16.0	..	..	..	..	..	..
November	..	..	..	8.8	33.1	5.3	40.4	5.3	18.4	0.9	4.6	0.3	1.1	..	..
December	..	..	..	2.1	19.3	2.9	36.5	0.4	2.8	0.7	4.7	0.2	0.9	0.5	3.8
Combined Average				2.7	..	3.5	..	1.5	..	0.8	..	0.3	..	0.5	..

SPECIFIC PROBLEM

Port Kembla Survey

This survey continued during 1958 as the largest single project being undertaken by the Division. As described in the 1957 report the purpose of the investigation is primarily to evaluate sulphur dioxide and other gaseous contaminants originating mainly from a smelting works but with some additional contribution by a sulphuric acid plant. During 1957 three monitoring points had been established and three more were installed in 1958. The positions of all gas-testing and deposit gauge stations including some proposed additional points are shown in figure 2.5.



G = GAS SAMPLING POINT

D = DEPOSIT GAUGE

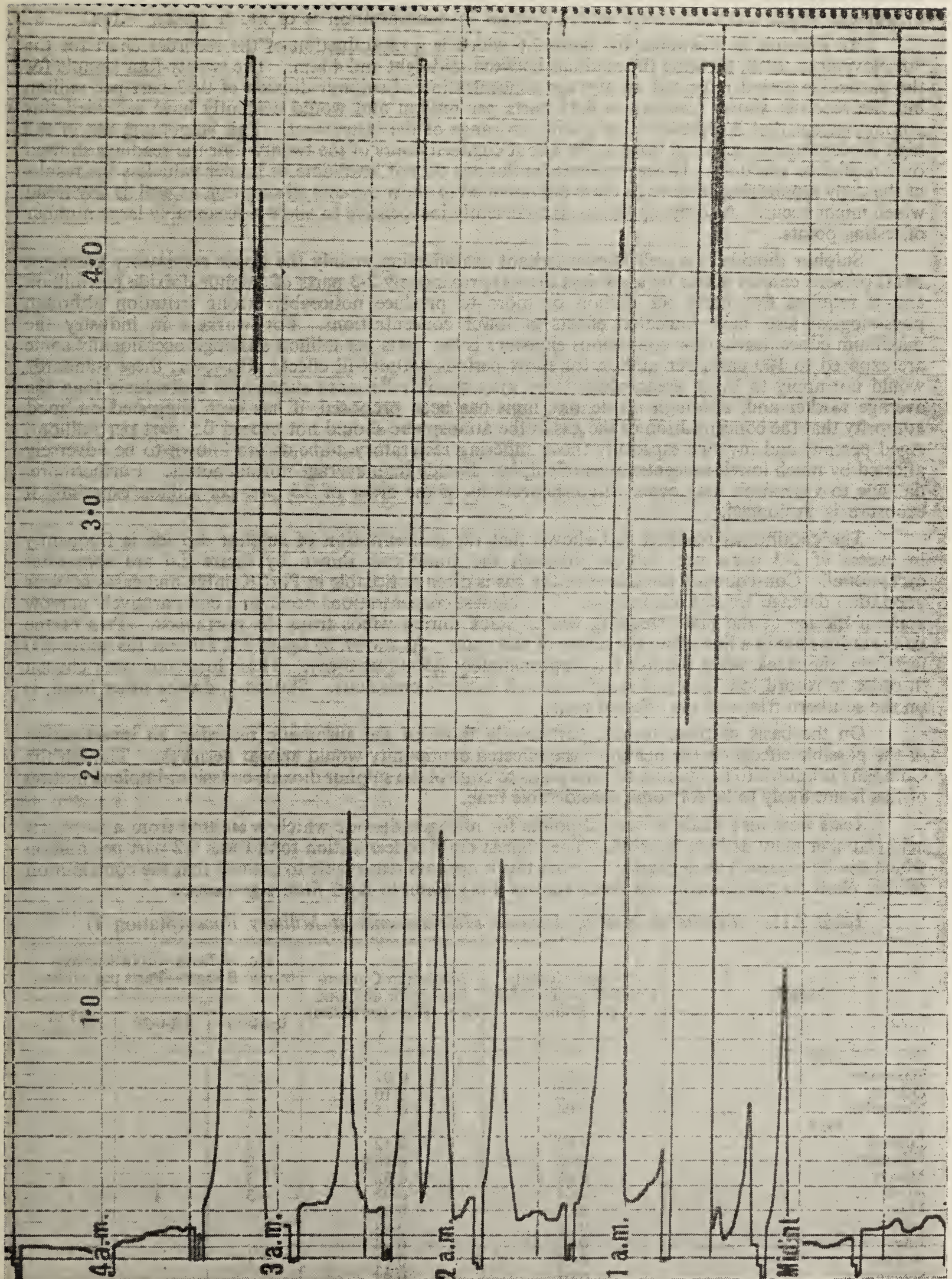


Fig. 2.6—Reproduction of Portion of Continuous Sulphur Dioxide Recording Apparatus

The results of the sulphur dioxide measurements at the daily sampling stations are shown in tables 2.11 to 2.13. Unfortunately, these figures present only a partial picture of the problem because concentrations of gas in the atmosphere are rarely, if ever, constant. This means that during any one day the effect of several hours unpleasant gas concentration may be partly obscured if only small amounts are present for the remainder of the twenty-four hours. Usually, because of changing weather conditions, this is the case. For that reason the continuous recording from an automatic instrument which instantaneously shows changes in concentration is of much greater value.

An example is illustrated by figure 2.6 which is a reproduction of the recorder chart for the 9th November, 1958, showing the readings between midnight and 4 a.m. The twenty-four sample for the particular period indicated an average concentration of sulphur dioxide of 0.32 part per million but the recorder shows readings to 4.85 parts per million and would evidently have exceeded this amount except that it represents the maximum range of the instrument. This smoothing out of the high concentrations occurred because for about eighteen hours of the twenty-four the readings showed only negligible amounts. However, these limitations do not invalidate or render valueless the results of the daily monitoring stations as these are intended to show the overall situation as well as any trend which might occur. Also the apparatus is sufficiently inexpensive to allow a reasonably large number of testing points.

Sulphur dioxide is a well known irritant gas affecting mainly the upper respiratory passages. Most persons cannot detect by smell less than approximately 2-3 parts of sulphur dioxide per million and it requires five parts per million or more to produce noticeably strong irritation although physiological tests have indicated effects at lower concentrations. For workers in industry the maximum concentration for continuous exposure is ten parts per million although occasionally some are exposed to 100 parts per million for short periods without ill effect. However, these standards would not apply to living areas where there may possibly be more susceptible individuals than the average worker and, although no definite limit has been proposed, it has been suggested on good authority that the concentration of the gas in the atmosphere should not exceed 0.5 part per million¹. Aged persons and invalids especially those suffering respiratory ailments are known to be adversely affected by much lower concentrations of sulphur dioxide than average normal adults. Furthermore, damage to vegetation may occur in concentrations of the order of 0.5 part per million especially if exposure is prolonged.

The continuous recorder has shown that the concentration of sulphur dioxide is frequently in excess of 2-3 parts per million although the conditions shown by figure 2.6 are somewhat exceptional. Consequently the odour of the gas is often noticeable in Port Kembla and cases of clear vegetation damage are not uncommon. The highest concentrations occur in a comparatively narrow zone in the lee of the main smelting works' stack during winds from the north-east. Two of the daily stations are in a line along the centre of this zone. As shown by figure 2.5, Station 1 is about 300 feet from the stack while Station 3 is approximately 2,500 feet away. These locations were chosen in order to record low level gas escapes as well as stack emissions. Station 2, on the other hand, is on the southern fringe of the affected zone.

On the basis of these results, particularly those of the automatic recorder, an investigation of the possible effects on the health of the affected community would appear desirable. Though the Company is known to be making definite plans to control the sulphur dioxide emission, implementation of this is not likely to be for some considerable time.

Tests were also made at several points for nitrogen dioxide which is emitted from a sulphuric acid chamber plant at Port Kembla. The highest daily concentration found was 0.2 part per million which can be regarded as negligible. From this it appears reasonable to assume that the contribution of this plant to pollution in the main part of Port Kembla is of little significance.

Table 2.11 — Results of Sulphur Dioxide Measurements at Military Road (Station 1)

Month	Average Monthly Concentration—Parts per Million	Maximum Concentration for any One Day—Parts per Million	No. of Days within Concentration Ranges—Parts per Million		
			0.1-0.19	0.2-0.29	0.3 or Higher
1957					
September	0.01	0.07	..	..	..
October	0.02	0.10	2	..	..
November	0.04	0.15	1	..	..
1958					
January	0.03	0.12	2	..	..
February	0.02	0.16	2	..	..
March	0.04	0.32	3	..	1
April	0.04	0.22	3	1	..
May	0.01	0.01	..	..	..
June	0.01	0.03	..	..	..
July	0.01	0.04	..	..	..
August	0.01	0.13	1	..	..
September	0.01	0.07	..	..	..
October	0.04	0.20	2	..	..
November	0.09	0.33	8	1	2
December	0.02	0.19	1	..	..

¹REFERENCE

Heneon, W. C. L. and Hatch, T. F. "Atmospheric Pollution",
Industrial and Engineering Chemistry — Vol. 39, No. 5 — P. 568 (May, 1947).

Table 2.12 — Results of Sulphur Dioxide Measurements at 3rd Avenue (Station 2)

Month	Average Monthly Concentration—Parts per Million	Maximum Concen- tration for any One Day—Parts per Million	No. of Days within Concen- tration Ranges—Parts per Million		
			0·1-0·19	0·2-0·29	0·3 or Higher
1957					
September	0·01	0·04	..	..	..
October	0·01	0·06	..	..	..
November	0·02	0·09	..	..	..
1958					
January	0·01	0·06	..	..	..
February	0·01	0·06	..	..	..
March	0·02	0·10	1	..	..
April	0·01	0·06	..	..	..
May	0·01	0·03	..	..	..
June	0·01	0·08	..	..	..
July	0·01	0·03	..	..	..
August	0·01	0·08	..	..	..
September	0·01	0·04	..	..	..
October	0·03	0·16	1	..	..
November	0·05	0·18	5	..	..
December	0·01	0·03	..	..	..

Table 2.13 — Results of Sulphur Dioxide Measurements, Corner of Cowper and Parkes Streets (Station 3)

Month	Average Monthly Concentration—Parts per Million	Maximum Concen- tration for any One Day—Parts per Million	No. of Days within Concen- tration Ranges—Parts per Million		
			0·1-0·19	0·2-0·29	0·3 or Higher
1957					
September	0·01	0·13	2	..	..
October	0·05	0·48	..	1	2
November	0·02	0·09	..	..	..
1958					
January	0·05	0·49	3	..	1
February	0·03	0·12	3	..	..
March	0·04	0·36	5	..	1
April	0·04	0·21	2	1	..
May	0·02	0·12	1	..	..
June	0·01	0·03	..	..	..
July	0·01	0·04	..	..	..
August	0·01	0·08	..	..	..
September	0·03	0·11	1	..	..
October	0·05	0·28	..	2	..
November	0·12	0·40	6	4	3
December	0·03	0·37	1	..	1

Smoke from Brickworks

The problem of smoke from brick and pottery kilns in Sydney and other areas of New South Wales was outlined in the 1957 Annual Report. Further tests made during 1958 indicated that smoke densities in residential areas adjacent to brickworks may frequently be as high as 15-20 coh units per thousand linear feet. This produces exceedingly unpleasant conditions and causes considerable damage to property. The attendant soot-fall problems are also responsible for many complaints.

Unfortunately, few smoke problems are more difficult to solve. In great Britain works of this type are subject to control by the more flexible Alkali and Works Act, rather than the Clean Air Act because of the special difficulties involved.

However, during 1958 considerable progress towards at least partial solution was made as the result of collaborated work between this Division and the Joint Coal Board. A method of firing kilns has been developed by which, under suitable conditions, smoke emission can be limited to the generally accepted standard of Ringlemann Shade 2. The method which is becoming known as “ Split-firing ” depends basically upon the division of each normal fuel addition into two portions. Each portion is added in a specific manner, consequently, split-firing is not simply a modification of the well-known “ little and often ” technique.

Normally, a brick kiln requires approximately seven to ten days to complete firing and during this time coal of high volatile content is fed at intervals of 2½-3 hours. At full-fire stage, which occupies about the last two days of the cycle, as much as one ton of fuel is added each time. As this large quantity of coal also tends to restrict the admission of air to the firebox the conditions for

smoke production are practically ideal. By reducing the initial quantity of coal addition to approximately two-thirds of the total, ample air space can be allowed, thus enabling more efficient combustion to be obtained with consequently less smoke. The second addition being smaller, and also because it is added near the front of the fire-box, heavy smoke can be avoided.

When split-firing is used, two short periods of moderate smoke replace the much heavier and longer emission of the traditional method. At the time of writing several firms in the Sydney area have tried or are trying the revised method with very favourable improvement of smoke emission. In some cases some reduction in fuel consumption as the result of the better combustion has been achieved. It is difficult to estimate, at the present time, whether split-firing is likely to be widely accepted but it can be anticipated that the usual resistance to a new method will occur.

Another development in connection with control of smoke emission from brickworks was the establishment of a special research committee by the Australian Coal Association Research Ltd. Several organisations are represented and a member of the Industrial Hygiene Division has attended some meetings. It is hoped that experimental work which has recently commenced will lead to an effective solution.

Slag Wool Manufacture

A difficult problem of irritating fumes arising from the above industry was the subject of several complaints during 1958. The fumes resulting from phenolformaldehyde resin used as a binder for slag-wool was most severe in the near vicinity of the plant although it was noticeable at a distance of half a mile or more. Low level escapes of the vapour were responsible for the former problem and the firm corrected this by improving collection hoods and venting to a ninety feet high stack. No method of solving the more distant pollution has yet been implemented and it will clearly be difficult and expensive to do so.

Smoke from Old Colliery Workings

Smoke and fumes from burning abandoned colliery workings have been long standing air pollution problems in coal mining areas but they have not previously been brought to the attention of this Division. However, during 1958, a large number of complaints were received at the Division from residents living in the vicinity of the abandoned workings of the Hill End Colliery. These mainly related to smoke and acrid fumes. Tests were commenced immediately for smoke, sulphur dioxide and hydrogen sulphide but action was also taken simultaneously by the Mines Department to seal the burning sections.

Consequently the tests showed no evidence of any pollution from the mine workings. Sulphur dioxide and hydrogen sulphide were not present in detectable amounts and the smoke density was slightly lower than the main area of Cessnock. Table 2.14 shows the results of the smoke tests and it is interesting to note the comparatively high densities in the cooler months resulting from purely domestic sources. Very few parts of New South Wales, other than the coal mining areas, are subject to any noticeable pollution from domestic sources.

Table 2.14 — Smoke Density Measurements in Cessnock in 1958
(Cohs per 1,000 Linear Feet)

Month							Hill End Area	Council Chambers
August	..	..	..	..	..	..	1.9	2.0
September	..	..	..	..	..	..	1.8	2.0
October	..	..	..	..	..	..	1.4	1.4
November	..	..	..	..	..	..	Withdrawn	0.8
December	..	..	..	..	..	..	Withdrawn	0.5

Miscellaneous Investigations

Numerous other investigations of various types were made during the year. Many of these are at an incomplete stage and will be dealt with in detail in future reports. These include:—

- (1) Odours from chemical plants;
 - (2) Grit and dust emission from such sources as cement works, foundries, steam plants and incinerators burning wood wastes;
- and many minor smoke problems.

At the end of the year one of the cement works in the State ceased operations temporarily, to allow the installation of dust control equipment. This works has been one of the major dust emission problems, producing dust fall values as high as 500-800 tons per square mile per month in certain areas in its vicinity.

Visit to South Australia

As the result of an application for the installation of a large sintering plant in a non-ferrous smelting works in New South Wales, Mr. J. L. Sullivan visited the Broken Hill Associated Smelters in Port Pirie, South Australia. The purpose was to ascertain what safeguards to prevent pollution would be required in the New South Wales plant.

While he was in South Australia Mr. Sullivan took the opportunity of calling on various people engaged in work of atmospheric pollution significance in South Australia. Discussions he had with Professor Badger of Adelaide University concerning the formation and analysis of the carcinogenic polycyclic hydrocarbons were of very great value to the Division's work in this field. Professor Badger is a recognised world authority in this branch of chemistry.

University of New South Wales

Mr. J. L. Sullivan continued to serve the University of New South Wales in the capacity of Honorary Senior Lecturer.

The survey of pollution in the vicinity of spreader stoker operated power stations was completed by the research fellow engaged on the work, Mr. P. L. Spedding, and his report in the form of a thesis was presented to the University.

CONCLUSION

Before concluding this report I should like to thank the Government Analyst and his staff for the help which they have been to the Division throughout the year. Finally I also wish to place on record the enthusiasm of my professional colleagues and clerical staff: No task is too onerous, big or difficult for them.

G. School Medical Service

ANNUAL REPORT, 1958

Director: E. S. A. Meyers, M.B., B.S., D.P.H.

Deputy Director: N. S. Solomons, M.B., Ch.M.

During 1958 the Committee which was set up by the Public Service Board to review the activities of the School Medical Service presented its report, and the recommendations made by the Committee were subsequently approved by the Public Service Board. It is hoped that in the near future the necessary funds will be available to implement the recommendations, which provided generally for a considerable expansion in the School Medical Service.

This year the same difficulties were experienced as previously, that is, that the Service was only able to provide a service for the more populous areas of the State, and then not completely.

During 1958 the Public Service Board set up another Committee to consider Child Guidance Clinics. The Committee met on a number of occasions, and it is hoped that its report will be furnished early in 1959.

The most interesting aspect of the work of the School Medical Service during the year has been the establishment of the first Child Health Centre at Forest Lodge. The existing procedure of visiting schools once only during a year has meant that the schools are deprived of a health service during the period between visits. It is well known both to educationists and to this Service that many children present health problems which call for a continuous health service for school children.

The experience already gained at Forest Lodge has shown the great need for such a service, particularly in the field of mental health, as the great majority of children already referred are suffering from behaviour or personality disorders. The emphasis on mental health today, and the considerable fall in the incidence of chronic disorders, such as tuberculosis, rickets, and rheumatic fever, mean that there must be a reorientation in the attitudes of the School Medical Service in its approach to the health of children. This does not mean that physical defects are not important and should not be sought. The medical examination of school children for the detection of physical defects is still most important, but it is essential that the Service should be extended to provide for the supervision of their mental health as well.

Medical Inspection of School Children

Again the programmes for the medical examination of children in the metropolitan, Newcastle and Wollongong areas were not completed in 1958.

In the schools visited, children were fully examined at entrance (kindergarten or first grade), reviewed with particular reference to hearing and vision whilst in fourth grade, and again fully examined whilst in first year (or equivalent class) and in fourth year during secondary school. Many children were presented by teachers and school nurses for examination in other classes, and the condition of other children was reviewed, following notation to that effect by the medical officer who had seen the children the previous year.

During 1958 medical officers of this Service examined 152,620 children, of whom 83,312 were fully examined, and 69,308 were reviewed, 20,089 of the latter group being in 4th grade (Table I).

TABLE I

	1953*	1954	1955	1956	1957	1958
School population	602,825	627,443	657,567	687,178	715,002	743,726
Number of pupils fully examined and reviewed ..	164,845	152,138	161,581	162,945	130,495	152,620
Number of pupils fully examined	128,542	108,806	95,338	86,666	69,688	8,3312
Number of pupils examined in 4th grade .. ..	..	11,106	22,813	26,993	18,855	20,089
Other reviews	36,303	32,226	43,430	49,286	41,952	49,219
Number of pupils fully examined and number reviewed in 4th grade, expressed as percentage of school population.	21.31	19.11	17.97	16.54	12.38	12.90

* Until and including 1953, children in 5th grade were fully examined, and the condition of those in 3rd grade reviewed. In 1954, these examinations were omitted, and the review of pupils whilst in 4th grade substituted.

Table II shows in detail the number of children who were fully examined or whose cases were reviewed, in the metropolitan area, country and the whole of the State, in primary and secondary schools, for the years 1956, 1957 and 1958.

Table III shows the number of pupils who were fully examined or whose cases were reviewed and the school population, in the metropolitan area, remainder of the State, and New South Wales, for the year 1958.

Excluding dental defects, defects of a notifiable standard were found in 25.2 per cent. of the children fully examined, compared with 24.5 per cent. in 1957. The most important defects found are shown in Table IV. Of the 20,983 defects recorded (this total does not include dental defects), it was found necessary to notify 67.8 per cent. of them to parents or guardians, in order that further investigation and/or treatment could be effected.

Although a thorough dental examination is not carried out by our medical officers, the oral condition of 4.9 per cent. of the children fully examined was so bad that it had to be notified to parents as being detrimental to their general health. The comparable figure for 1957 was 1.9 per cent. The dental state of our children must cause grave concern, when it is realised that very few children are dentally sound.

There was a considerable increase in the number of parents interviewed during the year. In 1957, 3,155 parents were interviewed by medical officers, but during 1958 this number increased to 5,969.

Following the examination of children in fourth year of high school, "warning letters" were sent to parents of 501 children, indicating defects that had been found that might debar acceptance as teachers' college students, compared with 404 in 1957. At the same time, the parents were informed that this Service would be prepared to give a definite opinion on the suitability of the children, if desired. Many parents accepted this offer, and their children were examined at this office.

TABLE II — NUMBER OF PUPILS WHO WERE FULLY EXAMINED OR WHOSE CASES WERE REVIEWED IN THE METROPOLITAN AREA, REMAINDER OF STATE AND NEW SOUTH WALES, 1956, 1957 and 1958

	Metropolitan			Remainder of State			New South Wales		
	1956	1957	1958	1956	1957	1958	1956	1957	1958
Primary									
Full Examination—									
Kindergarden and Grade I ..	33,067	22,504	30,425	6,609	5,823	5,882	39,676	28,327	36,307
Others	12,669	6,037	10,782	3,180	2,387	1,817	15,849	8,424	12,599
Total	45,736	28,541	41,207	9,789	8,210	7,699	55,525	36,751	48,906
Full Examinations	53,899	39,399	44,953	10,357	7,055	7,513	64,256	46,454	52,466
Reviews									
Grand Total	99,635	67,940	86,160	20,146	15,265	15,212	119,781	83,205	101,372
Secondary—									
Full Examination—									
Year 1	20,236	21,778	22,346	4,879	4,933	5,139	25,115	26,711	27,485
Year 4	3,526	4,082	3,934	868	906	1,043	4,394	4,988	4,977
Others	1,409	998	1,731	223	240	213	1,632	1,238	1,944
Total	25,171	26,858	28,011	5,970	6,079	6,395	31,141	32,937	34,406
Full Examinations	10,146	12,464	14,473	1,877	1,889	2,369	12,023	14,353	16,842
Reviews									
Grand Total	35,317	39,322	42,484	7,847	7,968	8,764	43,164	47,290	51,248
Total Full Examinations	70,907	55,399	69,218	15,759	14,289	14,094	86,666	69,688	83,312
Total Reviews	64,045	51,863	59,426	12,234	8,944	9,882	76,279	60,807	69,308
Grand Total	134,952	107,262	128,644	27,993	23,233	23,976	162,945	130,495	152,620

TABLE III — NUMBER OF PUPILS WHO WERE FULLY EXAMINED OR WHOSE CASES WERE REVIEWED, AND SCHOOL POPULATION IN METROPOLITAN, COUNTRY, AND NEW SOUTH WALES, 1958

	Metropolitan				Country				Total			
	Percentage				Percentage				Percentage			
Primary Schools												
Population					294,582				262,890			557,472
No. of Full Examinations .. .					41,207	(13·99)			7,699	(2·93)		48,906
No. of Reviews .. .					44,953	(15·26)			7,513	(2·86)		52,466
Secondary Schools												
Population					106,252				80,002			186,254
No. of Full Examinations .. .					28,011	(26·36)			6,395	(7·99)		34,406
No. of Reviews .. .					14,473	(13·62)			2,369	(2·95)		16,842
Total												
Population					400,834				342,892			743,726
No. of Full Examinations .. .					69,218	(17·27)			14,094	(4·08)		83,321
No. of Reviews .. .					59,426	(14·82)			9,882	(2·88)		69,308

TABLE IV — DEFECTS OF NOTIFIABLE STANDARD, FOUND IN PUPILS FULLY EXAMINED, 1958, AND EXPRESSED AS A PERCENTAGE

No. Examined									Boys 43,454	Girls 39,858
Defects—										
Vision									3·6	4·1
Hearing									3·5	2·9
Nose and throat .. .									1·1	1·3
Glands									0·6	0·5
Gums									0·3	0·2
Infestation .. .									0·1	0·4
Skin									1·6	1·7
Thyroid									0·1	0·4
Heart									0·5	0·6
Lungs									1·1	1·1
Asthma									3·2	2·1
Hernia									0·5	0·2
Orthopaedic .. .									2·3	2·8
Nervous system .. .									0·2	0·2
Psychological .. .									0·1	0·1
Speech									0·2	0·1

During the year, 99 visits were paid by medical officers of this Service to 13 nursery schools for the purpose of examining the children enrolled.

CHILD HEALTH CENTRE, FOREST LODGE

The Child Health Centre at Forest Lodge was opened on 1st July, 1958, and children were first examined on 22nd July, 1958.

In order to make known the objects of the Centre and the facilities available, representatives of the Department of Education, the Department of Public Health, the Catholic Education Office, principals and departmental heads of State and non-State schools have either attended the Centre or been present at a number of meetings convened for the purpose. The Western Suburbs Local Association of the British Medical Association and some Parents and Citizens' Associations and Mothers' Clubs have been addressed by the medical officer in charge of the Centre. Also, the superintendents and some members of the staff of the Royal Prince Alfred Hospital, Royal Alexandra Hospital for Children and the Institute of Child Health, have been interviewed and acquainted with the functions of the Centre. Liaison with the general practitioners of the area has been maintained, whenever possible. Useful reports and interchange of information have resulted from these medical contacts.

The main object of the Child Health Centre is to provide a more continuous and intimate health service than is possible from a centrally controlled School Medical Service. In addition to the routine medical examination of the children of the area, which examinations are carried out at the schools, there are frequent visits to the schools by the nurses attached to the Centre, thus bringing health matters up for virtually day to day discussion with school staffs. Defects and difficulties reported are conveyed to the medical officer for assessment and appropriate action. When necessary, he interviews and examines children at the Centre and in all cases furnishes a report to the principal of the school. In addition to school staffs, any responsible person interested in the welfare of children may obtain an appointment for examination of a child at the Centre. Of course, the Centre is not concerned with acute medical conditions occurring in children. These come within the province of the family doctor.

Another function of the Child Health Centre is to provide a consultative service for the guidance of teaching staff, school counsellors, parents and others interested in the Welfare of children of the area. In this connection, there were 162 telephone enquiries in the six months period.

The Centre provides a service for 90 schools, departmental and non-departmental, in which about 45,000 children are enrolled. The facilities of the Centre are also available for pre-school children.

A total of 19,744 children were examined by the medical officers attached to the Centre. The medical examination of these children commenced at the beginning of the year, prior to the opening of the Centre itself.

The medical officers at the Centre examined 125 children, referred mainly by teachers. The school nurses saw 726 children at schools during their follow-up visits, and carried out 610 home visits, also associated with the follow-up process.

The following is an analysis of the reasons for examination of the 125 children examined at the Centre by the medical officers:—

Maladjustment, emotional disturbance, behaviour problems, etc., (of these, 10 were referred to Child Guidance Clinics)	..	..	..	..	57
Suspected physical defects	..	..	..	..	50
Mental retardation (with or without physical defects)	..	..	..	..	10
Speech defects	..	..	..	..	8
					<hr/> 125 <hr/>

To assist the medical officers to handle the cases of children referred because of some maladjustment problem, case discussion groups have been arranged which have been attended by the child psychiatrists from our Child Guidance Clinics.

Adult health education in the interests of children is another objective to be explored in the near future. Lectures, discussion groups, films and similar methods are envisaged.

The staff of the Centre at present consists of the medical officer in charge, 2 medical officers, 6 nurses, 1 part-time clerk. With the completion of the renovation of the building — a fine old colonial home — the staff will include additionally a part-time ear, nose and throat consultant in charge of a hearing clinic, and 2 speech therapists.

SCHEME FOR MEDICAL EXAMINATION OF SCHOOL CHILDREN, CONDUCTED BY LYNDHURST SHIRE COUNCIL

As a result of representations from the Lyndhurst Shire Council during 1957, conferences were held at Blayney between representatives of the Council, the Department of Education, local medical practitioners, and the Deputy Director of this Service, regarding the inauguration of a scheme of medical examination of school children in the shire area. It was decided that the medical examination of all the school children in the shire should be undertaken by the local medical practitioners, working under the supervision of this Service, and that the examinations should be carried out in accordance with the normal School Medical Service requirements.

Medical examinations commenced in February, and were continued throughout the remainder of the year, by local medical practitioners, assisted by a nurse. A total of 19 schools were visited, and approximately 1,000 children were medically examined. The completed medical history cards were returned to this Service, and all children with defects were followed up for results by the nurse.

The statistical results are included in the tables attached to this report.

The scheme for the medical examination of school children in the Lyndhurst Shire has worked satisfactorily, and the Council and the local doctors are to be congratulated on their efforts and the results of their interest in public health and preventive medicine.

During the year a further enquiry regarding a similar scheme was received from the Yarrowlunla Shire Council. A conference between representatives of this Service and the Council, and local medical practitioners, has been arranged for early next year.

MEDICAL INSPECTION OF SPECIAL SCHOOLS

During the year visits paid to departmental schools for retarded children were directed towards the correction of physical defects, such as those of hearing and vision, which could be contributing towards apparent retardation, and also towards endeavouring to find the original cause of the retardation in cases in which no investigation had been undertaken. In the latter case, the parents were referred to their own general practitioner, or to the Royal Alexandra Hospital for Children or other hospital, the Northcott Neurological Centre, or the Spastic Centre, where investigations and treatment, if possible, were prescribed.

Considerable improvement was obtained in certain epileptic cases, and in others, where an abnormal electro-encephalogram indicated the advisability of drug treatment. Cases in which abnormal behaviour was causing concern were referred to departmental child guidance clinics.

In the visits to Child Welfare Department homes the aim was largely to observe the children in their own environment, particularly in cases where transfer to mental hospitals was sought. In some cases, transfer was considered necessary; in others, it was possible to make suggestions concerning treatment, aimed at improvement of mental and physical disorders, contributing towards the retardation or anti-social behaviour.

In the case of the special schools conducted by voluntary organisations, contact with the parents was sought whenever possible. Again, advice was given on physical defects and concerning the possibility of further investigations, if considered necessary. It is considered that the interviews with parents are of special value in promoting full acceptance of the child's disability, and reassuring the parents of the possibilities open to them for continued care of their retarded child, which reflects itself in improved emotional well being of the child.

The following special schools conducted by the Department of Education were visited during the year:— School for the Blind, Wahroonga; Glenfield Park Public School; Hassall Street Public School, Parramatta; Albert Road Public School, Strathfield; Cromehurst Public School, Lindfield.

Schools and homes conducted by voluntary organisations visited were:— Crowle Home, Ryde; Euralla House, Burwood; Sunnyfield, Manly; St. George, Kogarah; Sydenham-Bankstown; Sutherland Shire Handicapped Centre; Windgap, Coogee; Greenacres, Wollongong.

School Sanitation

Following each visit to a departmental school, a report is submitted by the medical officer concerning its sanitation. Of the 348 schools visited throughout the State during 1958, the accommodation was considered to be satisfactory in 86.5 per cent. However, the sanitation (including toilet, drinking and ablution facilities) was found to be unsatisfactory in 27.3 per cent. of the schools visited. The reports also revealed that the buildings and grounds of 29 per cent. of the schools visited were unsatisfactory.

It will be noted that, compared with previous years, there has been a most satisfactory improvement in accommodation, sanitation and the state of buildings and grounds of the schools in New South Wales.

Following receipt of the reports of medical officers of this Service, the Department of Education is notified immediately of the conditions found.

Child Guidance Clinics

The Service suffered a grievous loss with the retirement of Dr. Irene Sebire in the early part of 1958. Dr. Sebire joined the Service in 1939, having previously, in 1932, established the first Child Guidance Clinic in New South Wales at the Rachel Forster Hospital. She was an outstanding child psychiatrist and her retirement was greatly regretted.

As it was impossible to recruit a psychiatrist on a full-time basis to replace Dr. Sebire, it was necessary to employ part-time psychiatrists on a sessional basis.

During 1958, 2,635 new cases were seen at the Child Guidance Clinics (see Table V), compared with 1,713 during 1957. Of these, 1,246 were boys who were examined at the Yasmar Child Guidance Clinic.

As previously stated, the Public Service Board has set up a committee to plan for the future of Child Guidance Clinics, and in view of this, it is not considered necessary at this stage for me to make any reference to staff and accommodation problems, which undoubtedly will be covered in the report of that committee. There are still extensive waiting lists at all clinics, and the staffs of the clinics are intensively engaged on a very full training programme, covering Diploma of Psychological Medicine students, Fellows in Psychiatry, medical students, social studies students, school counsellors, etc.

At this stage it would appear obvious that a further problem is being presented by the recent establishment of the Child Health Centre at Forest Lodge. The ease of presentation of cases to the Centre has meant that many children are being seen with early behaviour or emotional disturbances, and most of these could well be handled by the medical staff at the Centre. In this regard, however, it will be necessary to arrange for the training of the medical officers in the field of mental health, as this is a subject which unfortunately, up to now, has been considerably neglected in the medical curriculum. If this can be done — and it is hoped that it can — this should, with the establishment of further Child Health Centres, relieve the pressure on Child Guidance Clinics, permitting the clinics to give more attention to their training programme and to act more extensively in a consultative capacity.

As previously pointed out, of the boys examined by the staff of the Yasmar Child Guidance Clinic, a considerable number are in great need of psychiatric treatment, which at present, unfortunately, is not available. Some of them require in-patient treatment, and here again, there is a lack of proper facilities.

The psychologists at the various clinics also accepted cases referred for intelligence testing from the speech therapists of the Service and school medical officers. During this year, there were 81 such cases.

TABLE V — CASES SEEN BY CHILD GUIDANCE CLINICS, 1958

	Clinic No. 1		Clinic No. 2	Clinic No. 3	Clinic No. 4	Clinic No. 5
	1st January 1958 to 30th June, combined with No.5	1st July, 1958 to 31st December				1st July, 1958 to 31st December
No. of new cases	265	164	421	Referred by 568 Court Committed to an institution 678 (Statutory examination).	387	152
Sex—						
Male	194	116	223		181	90
Female	71	48	198		206	62
Total No. of Interviews ..	2,187	1,502	3,330		3,164	1,494
Ages—						
0-5 years	31	10	40		38	11
5-10 „	92	62	179		172	60
11-15 „	117	72	155		142	63
Over 16	25	20	37		35	18
Sources of referral—						
Personal application	121	58	137		144	77
Children's Courts	28	16	86		95	24
Child Welfare Dept.	12	23	13		11	..
Education Department	40	14	101		48	25
Hospitals, Social Agencies	30	32	25		26	11
Medical Practitioners	21	16	22		14	5
School Medical Officers	13	5	29		26	6
Speech Therapist .. ..	..	..	8		23	4
Classifications—						
Agression	73	52	194		176	97
Non-aggression	89	49	143		83	55
Somatic complaint	24	19	19		13	22
Mental retardation	27	8	46		2	37
Psychoneurosis	46	29	19		117	50
Psychosis	6	7	..		..	1

Speech Therapy

During 1958, 8 speech therapy clinics operated in the metropolitan area. The clinics were housed in public schools in the following suburbs:—Beauty Point, Camperdown, Darlington, Paddington, Parramatta, Waterloo and Willoughby. Parramatta and Willoughby clinics were newly established in February, and have carried heavy case loads. Clovelly clinic did not function during 1958, as Paddington clinic was able to carry most of the case load from that area. It is anticipated that a speech therapy clinic will be established at the Forest Lodge Child Health Centre during 1959.

There is a need for many more clinics to be established in the metropolitan area, as some patients have to travel long distances to near city clinics, resulting in wastage of school attendance time. The most urgent needs appear to be in the Bankstown, Concord/Ryde and Manly areas.

It is disconcerting that at present it is not possible to offer an adequate speech therapy service to country school children. Many enquiries are received, particularly from country school counsellors, and the best service that can be offered at present is for arrangements to be made for the parent and child to be interviewed at a metropolitan clinic. The parents are given advice regarding the general management of the child and its problem, and in some cases the child is admitted for treatment during school vacations.

Four departmental trainees successfully completed the speech therapy training course and joined the speech therapy staff at the beginning of 1958. At the end of the year, one successfully completed her final year of training, and another her second year.

At the end of 1958 there were approximately 600 children with speech problems awaiting first interview, and this means that many cases will need to wait several months before being investigated. A public and professional awareness of speech therapy is developing, and it is anticipated that the number of referrals will gradually increase. With the present staff shortage only the most severe cases can be handled, preference being given to those children likely to receive most beneficial results from treatment.

TABLE VI — STATISTICS RELATING TO THE WORK OF THE SPEECH THERAPY CLINICS, 1958

	Beauty Point	Camper-down No. 1	Camper-down No. 2	Darling-ton	Padding-ton	Parra-matta	Rockdale	Waterloo	Willough-by	Total
No. of first interviews	91	78	48	48	96	158	133	27	118	797
Admitted or Re-admitted to treatment ..	79	65	52	40	60	110	89	42	92	629
Under treatment 1—1—58	37	24	27	47	31	..	23	31	..	220
Total cases treated 1958	116	89	79	87	91	110	112	73	92	849
No. of reviews	1	33	13	32	51	..	26	8	..	164
Total No. of attendances, 1958	1,487	1,488	913	1,271	1,387	1,541	2,292	1,402	1,905	13,686
Failure to continue treatment	12	11	10	17	10	10	14	10	6	100
Treatment deferred .. ..	..	..	1	..	..	..	4	..	..	5
Transferred to other clinics .. ..	..	10	7	8	2	..	10	1	..	38
Discharged under observation	36	24	11	21	48	21	11	7	19	198
Discharged relieved	40	21	7	16	10	21	27	17	31	190
Cases attending 31st December, 1958 ..	29	28	40	22	28	60	43	35	34	319
Cases awaiting first interview, 31 st Dec- ember, 1958	102	178	o. 1	70	50	50	16	53	73	592

(See also Table VIA).

TABLE VIA — ADDITIONAL INFORMATION RELATING TO THE WORK OF SPEECH THERAPY CLINICS, 1958

Classification of speech defects seen during the year:— ..

Dyslalia	444
Stammering	204
Dyslalia and Stammering	42
Sigmatism	54
Cluttering	13
Vocal Disorders, including Hyperrhinophonia, Cleft Palate, etc.	47
Speech Defect due to Brain Damage	32
Speech Defect associated with hearing loss	32
	<u>868</u>

Referrals for further investigation:—

Child Guidance Clinic	65
Hearing Clinic	45
Division of Research and Guidance, Department of Education	33
Psychologist, School Medical Service	69

TABLE VII — FIGURES RELATING TO WORK OF HEARING CLINIC, 1958

	Total number	Hearing normal	Deafness due to remedial conditions	Chronic deafness	Examined in O.D. classes	Hearing Aid recommended
New Cases—						
B.	817	271	404	142	..	18
G.	568	198	322	58	..	20
Total	1,385	469	726	200	..	38
Reviews—						
B.	657	238	306	113	100	5
G.	556	202	270	84	59	7
Total	1,213	440	576	197	159	12

Although the number of cases handled by the speech therapy clinics during the year is not far in excess of the 1957 figure, despite increase in staff, this can be partly explained by the fact that school medical officers are now referring cases of a more serious nature, and are indicating the severity of the disorder at the time of referral. The speech therapy clinics are selecting the most apparently serious disorders, and as a result the treatment programme is usually more extensive and time consuming than with milder cases.

A part-time speech therapy clinic continued to function at the School for the Blind, Wahroonga, on the basis of one day per week. The associated sight and/or hearing defects of these children makes the task of the speech therapist a laborious one, and in many cases a long-term view must be taken. The speech therapist's work is further hampered by the fact that no social worker is attached to the school staff, and some of the teaching staff appear to be unaware of the special emotional needs of these children. The speech therapist's task is also increased by the fact that it is often difficult to arrange parent interviews, but steps are being taken to facilitate this avenue of co-operation. Despite the lack of satisfactory working conditions at this institution, the speech therapist feels that she is filling a necessary role in the overall treatment of these children.

From February, 1958, a speech therapist has attended the Glenfield Park Public School on one day per week. Approximately 16 cases were treated during the year, and in view of the low intelligence of these children, good results seem to have been achieved. In a detailed report the speech therapist points out that it is impossible to accurately assess the benefit derived from speech therapy, but in 8 cases teachers stated overall improvement in class reading which they felt could be related to speech therapy. It is felt that this special clinic will provide a valuable lead in eventually assessing the speech prognosis of mentally handicapped children.

During the year liaison has been maintained (and in some cases newly established) with members of the medical profession and professional workers in the fields of education and social welfare. It is indeed gratifying to experience the growing awareness of the role played by speech therapists in the training and rehabilitation of handicapped children.

Statistics relating to the work of the speech therapy clinics during 1958 are set out in Table VI.

Hearing Clinic

During the year the hearing clinic functioned full-time with the services of three part-time ear, nose and throat surgeons. The great majority of the cases were referred to the clinic by school medical officers. The new cases examined numbered 1,385 (1,449 in 1957); 1,213 cases were reviewed during the year. Invitations to attend the clinic were set to 2,565 parents, and it will be noted that over 50 per cent. were accepted.

Information relating to the cases seen by the clinic is furnished in Table VII.

Infectious Diseases, Other Illnesses and Accidents

During 1958, 25,571 cases of injury and 142,777 cases of illness, other than infectious diseases, were reported amongst pupils attending departmental schools, necessitating respectively an average absence from school of 1.5 and 1.2 weeks. The comparable figures for 1957 were 23,373 cases of injury, and 138,137 cases of illness. Table VIII shows the number of pupils in departmental schools who suffered from the common infectious diseases for each year from 1949 to 1958.

TABLE VIII — NUMBER OF CASES OF COMMON INFECTIOUS DISEASES IN DEPARTMENTAL SCHOOLS, 1949-1958

	Measles	German Measles	Whooping Cough	Scarlet Fever	Diphtheria	Sore Throat	Chicken Pox	Mumps	Influenza	Acute Conjunctivitis	Acute Rheumatism and chorea	Polio-myelitis	Menin-gococcal Menin-gitis
1949	7,103	2,523	6,806	847	339	20,368	13,567	6,903	56,539	1,131	1,078	63	69
1950	21,728	2,117	803	436	203	20,335	11,919	15,193	112,495	821	999	228	39
1951	9,835	3,641	2,812	444	527	19,521	18,968	23,547	95,328	4,132	952	636	106
1952	29,578	7,143	2,772	529	154	21,016	10,974	9,319	87,390	1,318	804	449	59
1953	8,748	2,193	2,946	516	237	23,551	23,383	6,838	20,828	1,041	1,065	219	61
1954	36,080	6,345	1,210	477	144	27,482	12,577	24,480	98,665	946	1,007	190	54
1955	7,229	3,765	2,184	411	63	30,953	22,733	14,623	93,334	1,543	1,090	83	63
1956	30,202	5,547	3,132	478	34	29,790	15,513	9,052	79,595	2,119	1,095	120	47
1957	8,484	4,234	1,270	450	31	35,571	19,518	14,616	211,793	2,043	945	34	44
1958	22,389	6,059	1,036	658	29	40,016	18,090	32,207	82,632	2,849	925	35	65
Average absence in weeks 1958	2.6	1.9	4.2	3.4	2.9	1.1	2.2	2.3	1.0	1.3	5.2	7.7	5.4

During 1958, 4,051 children were notified as suffering from impetigo, requiring an average absence of 1.7 weeks; from ringworm, 2,585 requiring an average absence of 2.2 weeks; scabies, 248 requiring an average absence of 2.5 weeks; and pediculosis capitis, 1,351 requiring an average absence of 1.7 weeks.

The number of children who were absent from school as contacts of infectious disease totalled 3,751, compared with 3,176 in 1957.

No serious epidemics of infectious disease occurred in any departmental school in the period under review.

Medical Examination of Teachers and Teachers' College Entrants, etc.

During the year, the School Medical Service continued to carry out the general administrative medical work of the teaching service of the Department of Education. Owing to the increasing number of applicants for Teachers' College Scholarships it was necessary to alter the procedure for their medical examination prior to the award of a scholarship. As the number was so great, and beyond the capacity of this Service, arrangements were made for each applicant to be examined by his own family doctor. The examination record card was then forwarded, under confidential cover, to this Service. Other medical examinations of teacher applicants were carried out by officers of this Service, as in the past.

Teachers in the service were referred for examination for various reasons, such as questions of sick leave or retirement, determination of fitness for appointment to the permanent staff, etc. Psychiatric examination of students and teachers was carried out, where indicated.

The number of examinations carried out was:—

	1955	1956	1957	1958
Teacher's college entrants	2,846*	3,255*	3,775*	675* By Sch. Med. 4,462* Service. By private medi- cal practit- ioners.
Applicants for employment	586	747	607	740
Sick leave transfer to permanent staff, special exam- inations, retirement, etc.	861	895	985	796
Psychiatric examinations	139	137	175	128
	4,432	5,034	5,542	6,801

* These figures cover the twelve months period from 1st March of the year indicated.

The causes of sick leave in the 387 examined were as follows:—

	M.	F.	Total
Disease of the cardio-vascular system	27	21	48
Disease of respiratory system—			
Tuberculosis	1	..	1
History of tuberculosis	14	21	35
Other	14	21	35
Gastro-intestinal disease	7	14	21
Malignant disease	7	3	10
Gynaecological disease .. .. .	..	3	3
Diseases of the genito-urinary system	4	2	6
Diabetes mellitus .. .. .	..	1	1
Skin disease	2	4	6
Rheumatism and disease of bone	3	9	12
Ear, nose and throat conditions	3	7	10
Eye conditions	5	2	7
Anaemia and general health	5	14	19
Acute infectious disease	1	2	3
Thyroid conditions	1	2	3
Accidents	4	4	8
Disease of central nervous system	5	3	8
Mental diseases—			
Psychosis	9	9	18
Psycnoneurosis	21	27	48
Neurosis	19	24	43
Migraine .. .. .	..	1	1
Other .. .. .	..	1	1
Control of tuberculosis.. .. .	25	15	40
Total	177	210	387

During the year, the retirement of 20 teachers was recommended, for the following reasons:—

	M.	F.	Total
Diseases of the cardio-vascular system	4	2	6
Malignant Disease	4	2	6
Diseases of the nervous system	2	2	4
Skin conditions .. .. .	..	1	1
Eye conditions	1	..	1
Disease of respiratory system	1	1	2
Total	12	8	20

Of the 5,137 candidates examined to determine fitness for entrance to a teachers' college, 119 (2.3 per cent.) failed to pass the medical examination. This percentage of rejections compares with 3.5 per cent. for the previous year. The causes of rejection were:—

	M.	F.	Total
Myopia	2	5	7
Other visual defects	3	5	8
Impairment of hearing	7	6	13
Other E.N.T. conditions	5	..	5
Overweight	6	16	22
Migraine .. .. .	..	2	2
Asthma	8	9	17
Orthopaedic conditions	3	5	8
Genito-urinary conditions	2	1	3
Organic heart disease	1	1	2
Hypertension	1	1	2
History of "Nervous Breakdown"	1	1	2
Lung condition	3	4	7
Recurrent attacks of rheumatic fever .. .. .	..	1	1
Cerebral tumor	1	1	2
Skin conditions	3	5	8
Other	2	8	10
Total	48	71	119

In addition to the examinations carried out at head office, arrangements were made for the medical examination of applicants for casual or temporary employment in the country, by Government Medical Officers. The number of such examinations was 485, as compared with 414 in 1957.

At the end of the year, 1,608 graduates from the various teachers' colleges were assessed medically, to determine their fitness for permanent appointment. The comparable figure for 1957 was 1,332.

Medical Examination of Special Groups of Children

Children were examined at head office at the request of teachers or parents because of special health problems, and at the request of the Department of Education, for example, as to fitness for admission to special schools or classes. Children were also examined at the request of the Child Welfare Department. Many of the children showed mental retardation, and advice was given to parents and the appropriate Department concerning their care and schooling. The number of examinations carried out during the year was 638 (621 in 1957).

Teachers' Colleges

Part-time medical officers are employed at Newcastle, Wagga and Bathurst Teachers' Colleges. Four full-time medical officers share the duties at the Colleges in Sydney, namely, Sydney, Balmain, North Newtown and Alexander Mackie.

A full-time medical officer has been appointed for the Armidale Teachers' College, and will commence duties at the beginning of 1959.

National Fitness Camps

Two nurses from the School Medical Service are attached for duty at Point Wolstoncroft and Broken Bay Fitness Camps. A medical officer also visits these camps periodically and furnishes reports, with recommendations on the sanitary condition of the camps.

Asthma Clinic

The asthma clinic continued to function, and a report covering its activities during the year is attached as Appendix A.

Co-operation with Child Welfare Department and Outside Bodies

During the year the examination of special groups of children was carried out for the Child Welfare Department—Little Brothers and Fairbridge Scheme—Far West Children's Health Scheme, and Aborigines' Welfare Board. In addition, this Service is able to assist the Child Welfare Department in expressing opinions on the medical fitness of persons for child adoption, in certain cases.

Staff

Establishment: 32 medical officers; 6 psychiatrists; 3 part-time ear, nose and throat surgeons; 7 psychologists; 32 nurses; 9 social workers; 12 speech therapists; 6 trainees in speech therapy; 15 clerical officers; 1 switchboard operator.

During the year, 1 medical officer died; 5 medical officers retired; and 5 medical officers, 1 clerical officer, 2 psychologists, 3 social workers, 5 speech therapists and 3 nurses resigned.

Dr. Flook, whose death occurred early in the year, had been attached to the School Medical Service since 1922. He had given valuable service, and his death was regretted by all.

Of the medical officers who retired, 3 had been with the Service for many years, namely, Dr. Campling, since 1935, Dr. Frizell, since 1938, and Dr. Beith, since 1943; and their services were much appreciated.

The following appointments were made:—16 medical officers; 2 clerical officers; 4 psychologists; 2 social workers; 6 speech therapists; 3 nurses.

At the end of 1958 — vacancies existed for:—1 medical officer, 1 social worker, 1 speech therapist.

New positions created during the year:—2 speech therapists.

Conclusion

My thanks are due to all members of the School Medical Service for the manner in which they carried out their duties during the year.

Appendix A

ACTIVITIES OF THE ASTHMA CLINIC FOR THE YEAR 1958

The Asthma Clinic continued to function full-time for the year, the treatment being continued along the lines given in my Annual Report for 1955.

The total number of appointments for initial consultation (that is, new patients) from January to December, 1958, was 276, of which 216 appointments were kept and consultations held. Of these, the number of children who subsequently undertook treatment was 82.

The total number of appointments made for consultation with patients already under treatment was 1,208, of which number 1,067 appointments were kept.

It was noted that in the excessively humid period between January and April, many of the children had an attack of acute upper respiratory tract infection, accompanied by severe and persistent headaches and which persisted for a much longer period than a normal "cold". In some of the children so affected, an attack of asthma occurred during this time, even though most of them had been quite free of attacks for some time. Epistaxis was quite a common feature with many of the children during these months, whilst one child contracted a staphylococcal aureus infection, which took almost six weeks to clear up, and it was during this period that he developed his second attack of bronchitis in two years, the first having occurred during a bout of influenza in the winter of 1956.

An attempt was also made to bring up to date surveys of those children who began treatment in the years 1951 to 1954, but owing to lack of time and the fact that so many of these children have lost touch with the Clinic, or have now left school little real progress has been achieved to date.

In addition to the ordinary routine work of the Clinic, the general survey of results of treatment which was begun in 1954 was continued during the year, and completed for those children who began treatment in 1956. Surveys of those children commencing treatment in 1957 and 1958 were begun but could not be completed fully as each survey is based on a two-year period of results. The completed survey for 1956 is appended to this report.

It will be noted in the following table of results (for 1956) that a smaller number of children than usual remained under treatment for the full two-year period. The main reasons for this appear to be (1) illness on the part of the mother, (2) non-co-operation from either parents or child, and (3) that in a percentage of cases listed under the heading of "no reason" (for giving up treatment) it was subsequently learned that the mother decided to take a job to assist the family finances, and so gave up treatment within a few months, or as soon as the child began to show improvement. Questionnaires were sent to the parents in all these cases, but few were returned, and of those that were, it was obvious in practically every case that no attempt had been made to continue to treat the child's colds, with the subsequent return of nasal infection and in some cases, asthma attacks.

The total number of patients commencing treatment in 1956 was 80. Of this number, 18 gave the treatment up within 3 months. Of the remaining 62, 34 have been followed up for a period of two years or more, this time being taken as our standard period for review. The remaining 28 children are reviewed separately up to the time of their giving treatment up, and also their reasons for doing so. In addition, the 18 children who discontinued treatment within three months are reviewed, with their reasons for doing so.

In the summary of final results, the classification is set out as follows:—

- Excellent: No attacks of asthma or bronchitis for 2 years at least and all other symptoms either markedly improved or disappeared.
- Very Much Improved: 1 attack only in 2 years and all other symptoms markedly improved or disappeared.
- Much Improved: No attacks in the last 6 months of treatment and all other symptoms much improved.
- Improved: Still getting some slight attacks, but all other symptoms much improved.
- No Improvement: Still getting as much asthma as formerly with little improvement in all other symptoms.

Of the 34 patients who remained under treatment for two years or more, the results of treatment are set out hereunder:—

		Per cent.	
Excellent	17	50	} 67.65
Very Much Improved	6	17.65	
Much Improved	8	23.53	
Improved	3	8.82	
No Improvement	Nil	..	
	34	100	

In regard to the 28 children who have not been included in the above summary, treatment was given up at varying intervals, *i.e.*, 4 children gave it up at 4 months, 3 at 5 months, 3 at 6 months, 4 at 7 months, 1 at 9 months, 3 at 10 months, 4 at 11 months, 5 at 12 months and 1 at 14 months. The reasons for giving treatment up and the results that had been obtained up to this time are given below:—

Reasons —

Mother's ill-health	6
Treatment not carried out, or parents non-co-operative	2
Mother had another baby	2
Sent to school as "so well"	1
Uncontrollable child	4
Sent to Child Guidance Centre	1
Child developed hepatitis	1
Language difficulties	1
Returned to Scotland	1
Child left school	1
Under treatment by specialist for acne and this interfered with Clinic treatment	1
No reason given	7
	28

Results —

Excellent (None classified as such as not under treatment for the full 2 year period).	
Very Much Improved	15
Much Improved	9
Improved	4
No Improvement	Nil
	28

In the case of the 18 children who remained under treatment for less than 3 months, some of them were only under supervision for two to four weeks, and below are lists setting out briefly their reasons for not continuing and giving the results of treatment up to the time of its being given up.

Reasons —

Mother in ill-health	4
Parents' non-co-operation	4
Unsatisfactory home conditions	2
Child found to have bronchiectasis	1
Undertook treatment elsewhere (was under treatment 12 days only)	1
Family moved to country	1
Sent to school (by parents) as "so well"	1
Uncontrollable child	1
No reason given	3
	18

Results —

Excellent	} None classified as such owing to short .. time under treatment.	
Very much improved ..		
Much Improved ..		
Improved .. ..	.. ..	15
No Improvement .. ..	.. ..	3
		<hr/> 18 <hr/>

The age groups of the children treated in 1956 were as follows:—

3-5 years	15
6 years	22
7 years	12
8 years	2
9 years	4
10 years	7
11 years	4
12 years	5
13 years	6
14 years	2
15 years	1
	<hr/> 80 <hr/>

H. Division of Dental Services

ANNUAL REPORT, 1958

Director: W. B. Haymet, B.D.S.

Historical

Medical inspection of school children in New South Wales schools has been in operation since 1907. In 1913 the School Dental Service was inaugurated under the control of Dr. C. Savill Willis, Principal Medical Officer, Department of Education.

Two Travelling School Dental Clinics each staffed with a full time dentist and dental assistant were detailed for country service, and a clinic was also established in the metropolitan area with two part-time dental surgeons and an assistant.

At its inception and for many years, the School Dental Service was a branch of the School Medical Service of the Education Department.

In 1946 all health services were transferred to the Department of Public Health, and the following year a new division — the Division of Dental Services — was created.

Activities

The Division of Dental Services has two different fields of activity:—

- (1) The provision of a limited dental service to children of N.S.W. schools by maintaining 21 Travelling School Dental Clinics for the Education Department.
- (2) The provision of a complete dental service to patients of all ages in Government institutions, namely; 12 Mental Hospitals; 4 State Hospitals and Homes; and 1 Chest Hospital of the Health Department; 9 Institutions of the Department of Prisons; 22 Establishments of the Child Welfare Department.

Establishment

The authorised establishment of the Division is:—

- 28 Dental Officers, including the Director and Senior Supervisory Dentist,
- 11 Dental Assistants, including the Senior Dental Assistant,
- 1 Clerical officer.

There are also 3 private practitioners visiting country institutions on a part-time basis.

Policy

SCHOOL DENTAL SERVICE

The policy of the School Dental Service practically since its inception has been, as far as the staff position permits:—

- (1) To examine children 6-7-8 years in the metropolitan area, and to carry out treatment for those children whose parents give written permission.
- (2) To examine children 6-7-8-9 years in country areas, and to carry out treatment for those children whose parents give written permission.
- (3) To offer and carry out treatment to children of all ages in remote rural areas where parents give written permission.
- (4) To carry out emergency treatment for children of all ages where parents give written permission.
- (5) To visit schools every two years in the metropolitan area and every three years in the country, with the intention of contacting as many children as possible in their school lifetime.

School Dental Officers also distribute literature on dental health, and deliver lecturettes to classes.

INSTITUTION DENTAL SERVICE

The policy in Government institutions is to provide a complete dental service for children and adults. This service includes regular examinations, extractions, fillings, prophylaxis, the provision of dentures, including denture repairs, and X-rays and oral surgery where necessary.

General

Due to the difficulty in recruiting dentists to undertake country duties, at no time during 1958 was a full staff of School Dental Officers employed. Only 14 School Dental Officers worked the complete school year. There were 4 resignations, 1 retirement and 1 death during 1958. Six new officers were employed at various stages throughout the year. This constant shortage and change of staff affected the amount of work accomplished, which was however, greater than in 1957. The number of fillings inserted was the highest in the history of the service.

The total amount of work carried out by the Division in 1958 was:—

Examined	..	..	..	..	..	..	..	..	50,499
Treated	..	..	..	..	..	..	..	..	22,210
Visits	..	..	..	..	..	..	..	..	67,767
Extractions	..	..	..	..	..	..	..	..	40,641
Fillings	..	..	..	..	..	..	..	..	50,583
Dentures	..	..	..	..	..	..	..	..	795
Denture repairs	..	..	..	..	..	..	..	..	552
Other treatments including prophylaxis	..	..	..	..	..	..	..	..	59,490
Procedures under general anaesthesia	..	..	..	..	..	..	..	..	20

	Examined	Treated	Visits	Extractions	Fillings	Other treatment including Prophylaxis	Dentures	Repairs to Dentures
School Dental Service	35,007	16,055	47,724	26,035	43,641	48,894		
Mental Hospitals	9,208	2,500	8,634	7,152	1,113	3,975	330	334
State Hospitals and Homes	611	424	854	782	13	378	24	32
Chest Hospitals	82	63	353	120	31	197	19	6
H.M. Gaols	3,461	1,723	4,164	3,265	1,036	1,538	174	100
C.W.D. Establishments	2,130	1,445	6,038	3,287	4,749	4,508	248	80
Grand Totals	50,499	22,210	67,767	40,641	50,583	59,490	795	552

As in previous years posters and pamphlets on dental health were distributed. Lectures on oral hygiene, etc., were given to classes in the schools.

School Dental Service

Because of the shortage of staff, the total amount of work accomplished by the School Dental Service (with the exception of fillings) was less than in 1955, the last year in which a full staff was maintained for the entire school year.

At the end of the year a meeting of a committee, instituted by the Public Service Board to investigate the expansion of the School Dental Service, was held. The initial recommendations of the Division to the committee are contained in the concluding section of this report.

Children from 269 schools, being 87 metropolitan departmental schools, 119 country departmental schools, 38 metropolitan non-departmental schools and 25 country non-departmental schools, were treated by officers of the Division (See Appendix A).

Children from the undermentioned schools were not treated because the surgery accommodation was unsatisfactory:—

Metropolitan —

Bankstown North, Belrose, Collaroy Plateau, Epping, Epping Heights, Epping West, Forestville, French's Forest, Gardener's Road, Killara, Panania, Parramatta East, Parramatta West, Ryde West.

Dental treatment was not accepted by the following schools:—

Metropolitan —

Chatswood.

Country —

Alleena, Ashville, Cambewarra, Eribung, Goobang, Monga, Cookamidgera, Moorefield, Nerriga, Ooma North, Pinefield, Thuddungra, Wirrinya, Wongalea.

The School Dental Service examined 35,007 children of whom 29,083 were included in a Dental Health Survey. The dental caries incidence in the age group 6-9 years was 93.3 per cent; 6.7 per cent. had naturally healthy dentitions and a further 16.5 per cent. had healthy dentitions as a result of treatment previous to the time of examination. 76.8 per cent, were in need of dental attention.

The total amount of work carried out by the School Dental Service in 1958 was:—

Examined	..	..	..	..	..	..	..	35,007
Treated..	..	..	..	..	..	..	..	16,055
Visits ..	..	..	..	..	..	..	..	47,724
Extractions	..	..	..	..	..	..	..	26,035
Fillings	..	..	..	..	..	..	..	4,3641
Other treatments including prophylaxis	..	..	..	..	..	..	..	48,894

STEWART HOUSE PREVENTORIUM

The Board of Directors of the Stewart House Preventorium requested a dental service to their hospital in September. The Minister of Health approved of the service and a well equipped dental surgery was established at the home in accordance with specifications supplied by the Division.

A School Dental Officer commenced duty on 17th October, and the service has proved entirely satisfactory. Groups of 80 children are brought to the home each calender month. They are then returned to their homes with healthy dentitions.

ABORIGINES WELFARE BOARD

Departmental Dental Officers examined and reported on the dental condition of the children at the Annual Summer Camp at La Perouse. The usual advisory service to the Board was maintained throughout the year.

Institution Dental Service — Child Welfare Department

The dental service to the Child Welfare Department establishments was carried out satisfactorily during 1958.

BIDURA

A new dental surgery complete with X-ray dark room was completed at the Bidura establishment in Glebe Road, Glebe.

TAMWORTH

Visits by permanent officers to the Tamworth Institution were put on a regular basis throughout the year. Improvements to the surgery are at present under negotiation.

WEROONA: THORNBURY LODGE

Plans and specifications were supplied for construction of clinic rooms at the Weroona Home, Woodford and Thornbury Lodge, Baulkham Hills. Both rooms were nearing completion as at 31st December, 1958.

In the smaller homes School Dental Officers were rostered for duty in all school vacations, so that the State wards were examined and treated at least every 3-4 months.

The total work achieved for the year was:—

Extractions	..	..	..	..	..	..	..	3,287
Fillings	..	..	..	..	..	..	..	4,749
Other treatments		..	..	..	..	..	..	4,508
Dentures	..	..	..	..	..	..	..	248
Denture repairs		..	..	..	..	..	..	80

Mental Hospitals

The regular dental service to Mental Hospitals of the State was continued. Permanent officers of the Division are responsible for dental treatment in all Mental Hospitals with the exception of Bloomfield and Tomaree Convalescent Hostel.

BLOOMFIELD

To augment the treatment by the part-time visiting Dental Surgeon to Bloomfield, School Dental Officers were sent to the hospital in the school vacations, to carry out regular examinations and treatment. It is proposed to continue this arrangement. Some new equipment was provided in 1958, and there are now two well-equipped surgeries.

TOMAREE CONVALESCENT HOSTEL

The system of treatment at Tomaree has proved satisfactory. The patients are taken regularly to the surgery of the local dentist at Nelson Bay, the cost of the service being based on reasonable rates of payment.

MORISSET

Excess dental equipment was transferred from Bloomfield to the Criminal Ward at Morisset. This and the purchase of a new dental engine has resulted in an efficient surgery in the Criminal Ward. There are now three surgeries at this hospital.

GLADESVILLE

Some new equipment was provided in 1958 although the dental accommodation is still unsatisfactory. No funds were available to continue with the project of remodelling the main dental surgery.

PEAT AND MILSON ISLANDS

Some new equipment was installed during 1958 at the Milson Island surgery. The room was also otherwise improved.

The surgeries on both Islands are now efficient.

The total work accomplished in Mental Hospitals in 1958 was:—

Extractions	..	..	..	..	..	..	..	7,152
Fillings	..	..	..	..	..	..	..	1,113
Other treatments	..	..	..	..	..	..	..	3,975
Dentures	..	..	..	..	..	..	..	330
Denture repairs	..	..	..	..	..	..	..	334
General anaesthetics	..	..	..	..	..	..	..	6

The number of general anaesthetics was the lowest for many years as many patients in need of this treatment will be referred to Ryde Psychiatric Centre in 1959.

State Hospitals and Homes

Officers of the Division made regular visits to Lidcombe and Newington State Hospitals during the year. Visits to Liverpool and Garrawarra were made only when necessary, as little work was required.

The total work accomplished in State Hospitals in 1958 was:—

Extractions	..	..	..	..	..	..	..	782
Dentures	..	..	..	..	..	..	..	24
Denture repairs	..	..	..	..	..	..	..	32
General anaesthetics	..	..	..	..	..	..	..	13

H. M. Penal Establishments

Regular visits were made by officers to Long Bay, Emu Plains, Parramatta, Cooma, Berrima, Goulburn, Bathurst and East Maitland. The arrangement of employing a part-time visiting dentist to Grafton Prison has continued satisfactorily.

BERRIMA TRAINING CENTRE

New dental equipment to completely re-equip the dental surgery was received at Berrima during the year.

The total work achieved in H. M. Penal Establishments in 1958 was:—

Extractions	..	..	..	..	..	..	..	3,265
Fillings	..	..	..	..	..	..	..	1,036
Other treatments		..	..	..	..	..	..	1,538
Dentures	..	..	..	..	..	..	..	174
Denture repairs	..	..	..	..	..	..	..	100

Conclusions

The year again saw a continuation and consolidation of the dental service in Government institutions. Approximately 35 well-equipped clinics have already been completed.

The institution of a committee by the Public Service Board to investigate the development of the School Dental Service was appreciated, as it has been pointed out on many occasions previously that the School Dental Service, as it at present exists, is not capable of carrying out a reasonable policy of treatment.

Various types of policies as applicable in other States of Australia and in other countries, have been placed before the committee for its consideration. It is anticipated that the best aspects of other school dental services will be applied to that in New South Wales consistent with the staff and finance available.

Appendix A — Schools Treated, 1958

METROPOLITAN

Abbotsford	Marrickville and Convents (2)
Alexandria	Marrickville West
Artarmon and Convent	Marsfield and Convent
Asquith and Convent	Mascot and Convent
Auburn Convent	Maroubra Convent
Balgowlah Heights	Matraville
Balgowlah North	Mt. Colah
Banksmeadow	Mt. Kuring-gai
Bankstown West	Narrabeen North
Bass Hill	Narraweena
Beacon Hill	Neutral Bay and Convent
Beaumont Road	Normanhurst
Beecroft	North Sydney and Convent
Bexley	Paddington Convent
Bexley North	Pagewood
Bondi Beach and Convent	Panania North
Botany and Convent	Parramatta North and Convents (2)
Bradfield Park	Pennant Hills and Convent
Brighton-le-Sands	Pennant Hills West
Bronte	Petersham
Bundeena	Plunkett Street
Burraneer Bay	Punchbowl and Convent
Cammeray	Rainbow Street
Castlecrag	Revesby
Chipping Norton	Revesby South
Clovelly	Rhodes
Concord West and Convent	Rosebery Convent
Cronulla and Convent	Rozelle Convent
Crystal Street	Russel Lea
Deewhy and Convent	Rydalmere North
Dulwich Hill Convent	Ryde and Convent
Drummoyne and Convent	Ryde North and Convent
Earlwood and Convent	St. Ives
East Hills	Stanmore and Convent
Eastlakes and Convent	Strathfield (St. Patrick's College)
Eastwood and Convent	Summer Hill
Eastwood Heights	Sydney (St. Mary's Basilica)
Ferncourt	The Meadows
Five Dock West	Thornleigh
Girraween	Undercliffe
Glenfield Special	Wahroonga
Glenmore Road	Waitara and Convent
Hassall Street	Warrawee
Hornsby	Waterloo and Convent
Hornsby South	Wattawa Heights
Hurstville	Westmead
Leichhardt	Woollahra and Convent
Lewisham Convent	Yagoona

Appendix A — Schools Treated, 1958 — *continued*

COUNTRY

Albert	Marulan South
Albury	Menindee
Back Yamma	Meroo Meadow
Bateman's Bay and Convent	Mildil
Beargamil	Milton and Convent
Bedgerabong	Mirra View
Benandarah	Mogo
Bolong	Mongarlowe
Bomaderry	Morisset
Bourke and Convent	Murga
Braidwood and Convent	Nelligen
Bribbaree	New Lambton and Convent
Brooman	New Lambton South
Bungonia	Nord's Wharf
Calarie	Nowra Hill
Calleen	Parkes and Convent
Captain's Flat and Convent	Parkesborough
Caragabal	Parkes South
Catherine Hill Bay	Payten Bridge
Cedar Brush Creek	Plumpton
Charlestown and Convent	Pyree
Clear Ridge	Quandialla and Convent
Cobar and Convent	Rhyanna
Colyton	Rooty Hill Convent
Cooranbong	Rosebey Park Aborigines
Coradgery	St. George's Basin
Dooralong	St. Mary's and Convent
Dora Creek	Shoalhaven Heads
Enngonia	Shaw's Creek
Eraring	Springfield
Erskine Park	Sunny Wood
Euabalong	Sussex Inlet
Euabalong West	Tacoma
Eugowra and Convent	Tallong
Falls Creek	Terara
Fifield	Tibooburra
Forbes and Convent	Tichborne
Forbes North and Convent	Tirranna
Forbes South Convent	Tomerong
Carema Siding	Tottenham
Greenwell Point	Toukley
Coonumbra	Trundle and Convent
Goulburn Christian Brothers'	Tuggerawong
Heaton	Tullamore
Helensburgh and Convent	Ulladulla
Huskisson	Wallsend and Convent
Jennalong	Wandandian
Jesmond	Warnervale
Jiliby	Warroo
Kangaroo River Upper	Wilcannia Aborigines
Kangaroo Valley	Windellama
Kanwal	Wongajong
Katoomba and Convent	Wreck Bay Aborigines
Katoomba North	Wyalong
Lake Munmorah	Wyalong West and Convent
Lambton and Convent	Wyee
Llandilo	Wyong Creek
Major's Creek	Yarra
Martinsville	Yarramalong
Marulen	Yatheyattah

I. Physically Handicapped Persons**ANNUAL REPORT ON THE ORGANISATION AND ACTIVITIES OF THE CONSULTATIVE COUNCIL FOR THE PHYSICALLY HANDICAPPED FOR THE YEAR 1958****Meetings**

Twelve general meetings of the Council and one of the Executive Committee were held during 1958. Following recommendations made at a special Sub-Committee meeting held on the 28th February, 1958, it was decided that the Executive Committee (which had been formed in 1946) should in future meet only in the event of emergency, interim approval for assistance to new applicants being given by the Chairman or by the Director-General of Public Health.

Functions

The Council also agreed:—

- (1) The scope of eligibility for assistance should be elastic rather than confined and the Council should have discretion in deciding which applicants should be helped by physiotherapy or other means.
- (2) The two existing grants be combined into one fund for the care and rehabilitation of the physically handicapped.

Membership

Great regret was expressed when in January, 1958, Dr. S. W. G. Ratcliff resigned from the Council. Dr. Ratcliff had been a member of the Council since its inception in 1937 and Chairman since 1950.

Mr. J. R. Danks, State Supervisor, Engineering Trades Courses, Department of Technical Education, was elected Chairman in February, 1958.

Dr. A. B. Lilley, who retired from the Chairmanship of the Hospitals Commission in August, 1958, was replaced on the Council by his successor, Dr. H. Selle; as the Commission's representative.

Membership as at December, 1958, was as follows:—

Mr. J. R. Danks, State Supervisor, Engineering Trades Courses, Department of Technical Education, Chairman.

Dr. H. G. Wallace, Director-General of Public Health.

Dr. H. Selle, Chairman, Hospitals Commission.

Dr. A. E. Machin, ex-Director of School Medical Services.

Dr. R. L. Stephen, Orthopaedic Surgeon.

Dr. Keith Smith, Orthopaedic Surgeon.

Dr. S. Scougall, Orthopaedic Surgeon.

Dr. S. E. L. Stening, Physician.

Miss C. Gibson, Representative of the Australian Physiotherapy Association.

Mrs. J. Lee-Martin, Occupational Therapist and Representative of the Occupational Therapy Association.

Dr. Mary Bertram, Medical Officer and Secretary.

Staff

As from June, 1958, the appointment of Mrs. Lee-Martin as Occupational Therapist to the Council, previously part-time, was made full-time.

Staff as at 31st December, 1958, was as follows:—

Mrs. G. Doust, Shorthand-writer and Typist.

Mrs. J. Lee-Martin, Occupational Therapist.

Dr. Mary Bertram, Medical Officer and Secretary.

Association with Other Departments and Organisations

Co-operation continued between the Council and the Division of Epidemiology, the Department of Social Welfare, the Commonwealth Rehabilitation Section of the Department of Social Services, the Employment Division of the Labour and National Service, the New South Wales Society for Crippled Children, the Far West Children's Health Scheme, the Civilian Maimed and Limbless Association and the Poliomyelitis and Physically Handicapped Society. Information was also exchanged with the Director of the Poliomyelitis Immunization Campaign.

Pan-Pacific Rehabilitation Conference

During the week ending 10th November, 1958, the above Conference was held in Sydney. Mr. K. F. Coles of Sydney presided. The Consultative Council arranged that through a roster, members might have the opportunity of attending those sessions in which they were particularly interested and every session was thus covered by one or more representatives. The Conference was interesting and stimulating, the speakers giving an overall picture of increasing expansion in methods of rehabilitation for the physically handicapped.

Services to Doctors and Patients

With the Council's widened activities have come a greater number of applications for assistance, not in any sudden influx but with steady increase. It is felt that those seeking help represent a necessary section of the community whom no other organisation is in a position to assist. The full-time appointment of the Occupational Therapist has led to a domiciliary rehabilitation set up which minimises the delay between a patient's discharge from hospital and return to such daily living

activities as his or her disability permits. At the same time, however, there has been revealed, in some cases, a lack of sufficient preliminary investigation into the home conditions before the patients' referral to the Council, and it is felt that this is a gap which would have to be bridged in any large-scale rehabilitation programme.

The decrease in the Council's expenditure in comparison with the increased activities is somewhat misleading, as the economic picture has been changed by the full-time appointment of the Occupational Therapist, from June, 1958 (formerly half-time), whose salary is not included in the grant estimates. Prior to this appointment fees for occupational therapy were paid to private therapists and formed part of the estimate. In all, 42 persons were assisted with rehabilitation measures, and payment was made to the Far West Children's Health Scheme for 35 patients at their home at Manly. The total expenditure for the year was £1,397.10s.6d.

During the twelve months under review 682 home visits were made by the Occupational Therapist (mileage from June to December, 7,045 miles), and 27 patients were assisted with rehabilitation measures. Therapy was not confined to craft-work but was aimed at helping patients to regain confidence and a maximum amount of independence — learning to readjust life to the pattern of their ultimate disability.

The assistance given included the making of special self-help devices, washing mitts, long-handled general holders, slings, etc.; and the lending of equipment, *e.g.*, typewriters, a sewing machine, flower-making tools, owned by the Council for patients' usage as long as needed.

SECTION II—MEDICAL OFFICERS OF HEALTH

METROPOLITAN HEALTH DISTRICT — REPORT FOR THE YEAR 1958

Metropolitan Medical Officer of Health: J. J. Donnellan, M.B., Ch.M., D.P.H.

I present my report on the state of the Public Health Sydney Metropolitan Health District for the year 1958.

The district comprises thirty Municipalities, including the Cities of Sydney and Parramatta, two Shires, Hornsby and Warringah, and the Harbour of Port Jackson.

It comprises 458,552 acres.

The mean population of the district on June 30th was 1,889,864, an increase of 32,734 over the previous year.

The density per acre is 4.12 which is a slight increase over the previous year when it was 4.05.

The population of the City of Sydney decreased from 185,110 in 1957 to 184,310 in 1958, a difference of 800. The density per acre decreased from 25.85 to 25.74.

Of the thirty-two Local Government Areas in the Health District, the population decreased in eleven of them and increased in twenty, *i.e.*, over the previous year, one remained stationary.

The decreases were slight, the largest being in City of Sydney, Woollahra and Waverley, being 800, 640 and 600 respectively.

The largest increases were in Bankstown 6,700, Warringah 4,670 and Parramatta 4,500.

Waverley has the highest density per acre 29.31, followed by City of Sydney 25.74 and Leichhardt 24.22

Hornsby and Liverpool have the lowest density per acre 0.4.

Vital Statistics	1957	1958		1957	1958
Live births	35,408	35,660	} Rate per 1,000 of mean population {	19.11	18.87
Stillbirths	528	482		.28	.26
All births	36,008	36,147		19.39	19.13
Deaths (all ages)—					
Males	10,040	9,957	} Rate per 1,000 of mean population	10.10	9.74
Females	8,725	8,458			
Total	18,765	18,415			
Infantile Mortality—					
Under 1 week	450	447	} Rate per 1,000 live births {	12.68	12.53
Under 1 month	607	524		17.11	14.69
Under 1 year	723	722		20.38	20.24
Maternal Mortality	24	27	Rate per 1,000 live births	0.68	0.76

The above figures show a slight fall in the birth rate, death rate and infantile mortality rate, and a rise in the maternal mortality rate. The maternal mortality rate has shown a slight rise each year for the past five or six years.

Causes of Death

It is pointed out that the figures of causes of death are for the Metropolitan Area as defined for statistical purposes, and not for the Metropolitan Health District, which are not available. The population of the Statistical Metropolitan Area is 129,000 greater than the Metropolitan Health District, so the figures for the latter would be slightly less than those quoted, but the ratio between the causes would not be altered to any extent.

Figures in brackets relate to previous year 1957.

Diseases of the heart 7,168 (7,098) with rate of 3,550 (3,594) per million of the mean population is the chief cause of death.

Malignant neoplasms 3,075 (3,086) with rate 1,523 (1,563) were next, and vascular lesions affection the central nervous system 2,814 (2,963) rate 1,393 (1,500) were next.

There were 1,108 deaths due to violence (suicide 246, homicide 30, accident 832). These figures are all less than the previous 287, 34, 894 respectively.

List of other causes of death with the figures for 1957 in brackets:—

								Rate per million of mean population	
Pneumonia	..	..	..	..	..	664	(754)	329	(381)
Nephritis and Nephrosis	..	..	..	..	..	219	(263)	108	(133)
General Arteriosclerosis	..	..	..	..	..	276	(273)	137	(138)
Tuberculosis	..	..	..	..	..	119	(158)	59	(80)
Diabetes mellitus	..	..	..	..	..	217	(228)	107	(115)
Bronchitis	..	..	..	..	..	194	(198)	96	(100)
Senility	..	..	..	..	..	143	(149)	71	(75)
Gastro-enteritis and Colitis	..	..	..	..	..	56	(41)	28	(21)
Syphilis and its sequelae	..	..	..	..	..	31	(35)	15	(18)
Alcoholism	..	..	..	..	..	31	(38)	15	(19)
Influenza	..	..	..	..	..	7	(36)	3	(18)
Arthritis	..	..	..	..	..	37	(24)	18	(12)
								Rate per 1,000 live births	
Puerperal Causes	..	..	..	..	..	27	(26)	13	(13)

Infectious Diseases

See Tables I and II Section 1A — Communicable Diseases

There are now twenty-six diseases notifiable under the Public Health Act. Staphylococcal Mastitis, staphylococcal Pneumonia and staphylococcal infection in infants under four weeks became notifiable in September, 1958.

The following is the list of notifiable Infectious Diseases which occurred in the Health District during 1958, with the figures for 1957 in brackets:—

Acute Anterior Poliomyelitis	..	..	..	..	..	4	(19)	No deaths in 1958
Ankylostomiasis	..	..	..	..	..	2	(4)	No deaths in 1958
Ascariasis	..	..	..	..	..	3	(1)	No deaths in 1958
Brucellosis	..	..	..	..	..	6	(4)	One death in 1958
Rheumatic Chorea	..	..	..	..	..	6	(1)	No deaths in 1958
Diphtheria	..	..	..	..	..	7	(29)	No deaths in 1958
Infectious Hepatitis	..	..	..	..	..	1,289	(1,130)	Eight deaths in 1958.
Infantile Diarrhoea	..	..	..	..	..	82	(130)	Seventeen deaths in 1958
Leptospirosis	..	..	..	..	..	Nil	(Nil)	
Meningococcal Infection	..	..	..	..	..	36	(42)	Eight deaths in 1958
Ornithosis	..	..	..	..	..	Nil	(Nil)	
Paratyphoid Fever	..	..	..	..	..	7	(4)	No deaths in 1958
Puerperal Fever	..	..	..	..	..	13	(19)	Six deaths in 1958
Rheumatic Fever	..	..	..	..	..	38	(34)	Two deaths in 1958
Scarlet Fever	..	..	..	..	..	305	(287)	No deaths in 1958
Typhoid Fever	..	..	..	..	..	11	(4)	No deaths in 1958
Typhus Fever	..	..	..	..	..	0	(1)	No deaths in 1958
Virus Encephalitis	..	..	..	..	..	10	(5)	Three deaths in 1958
Staphylococcal Mastitis	..	..	..	..	..	2	} Made notifiable in September, 1958.	
Staphylococcal Pneumonia	..	..	..	..	..	3		
Staphylococcal Infection in Infants under four weeks	..	..	..	..	..	2		

The figures for staphylococcal diseases are not a true representation of the incidence of those diseases as they became notifiable only in the latter part of 1958 and therefore are for approximately three months only.

It can be seen from the above table that there were forty-five deaths during the year from notifiable infectious diseases, the greatest number, seventeen being due to infantile diarrhoea, meningococcal infection eight and infectious hepatitis eight.

INFECTIOUS HEPATITIS

This disease continues in epidemic form, 1,289 cases with eight deaths as opposed to 1,130 with eighteen deaths in 1957.

DIPHTHERIA

Seven cases — no deaths which is again a gratifying decrease in the previous years low record of twenty-nine cases with one death.

ACUTE ANTERIOR POLIOMYELITIS

Four cases as opposed to nineteen the previous year with no deaths.

TYPHOID FEVER

There were eleven cases of typhoid fever. This is a higher incidence than average, but it is accounted for by a small outbreak of certainly four and probably five cases, the source of the outbreak was found to be a carrier. Two other carriers were discovered during the year each responsible for one case living in the same house.

VIRUS ENCEPHALITIS

Ten cases with three deaths is twice the number of cases for the previous year with three deaths as opposed to one in 1957.

The other diseases for the most part showed gratifying decreases on previous years.

While the incidence of notifiable infectious diseases is relatively low, the above figures leave no room for complacency, and show that constant vigilance is necessary in the adoption of all prophylactic measures so that these diseases may be kept at their present low level and perhaps abolished altogether.

Environmental Sanitation

Advising on and supervising the work of Local Authorities in the above field and carrying out the statutory duties under the Public Health Act is an important and ever growing responsibility of this Branch, and a great number of complaints are received and problems present themselves and have to be investigated and reported on. These complaints and problems spring, in large measure, from the great increase in the population and expansion of the city with the consequent shortage of housing accommodation, and also the inability of the Authorities to provide sewerage and drainage facilities to a large proportion of the population.

Problems associated with nightsoil and sullage disposal increase each year.

Atmospheric pollution and disposal of effluents from factories give rise to many complaints, and difficult problems arise in relation to health matters.

Sanitary depots for nightsoil disposal are being overloaded, and are being encroached on by housing settlements so much so as to render them no longer suitable.

Some solution of this problem may be effected by the building of sewage disposal plants where nightsoil is tipped direct into the Metropolitan Water and Sewerage Board's sewers. This is contemplated by several Councils, and are already in existence in Bankstown, Parramatta, Canterbury and Willoughby. This enables Councils to close their nightsoil sanitary depots which are becoming a source of great nuisance and danger to health.

During 1957 at the direction of the Minister, a committee was formed to advise on the possibility of modifying the then design of a septic tank so that the aerating chamber could be eliminated. The Committee consisted of members of this Department with the Metropolitan Medical Officer of Health as Chairman, also several Public Works Department Health Inspectors and representative of the Health Inspectors and Shires Association.

After several meetings, the Committee recommended that approval be given to erect single chamber septic tanks, *i.e.*, single treatment septic tanks with certain provisos. This was approved, and now this new type is being used extensively.

All matters dealing with environmental sanitation are kept constantly under observation, and recommendations are made to Councils in regard to these matters when considered necessary.

Investigations for and reports made to other Government departments when required, and a special liaison, exists between the Branch and the Housing Commission in relation to the sanitation of Housing Settlements.

A great number of inquiries are made to this Branch either by telephone or interview, and these are attended to.

In regard to Health Education, the Medical Officer of Health has throughout the year given advice on public health matters through newspapers and over the air, and in his capacity as Chairman of the Health Week Executive; he also served during the year on the following Committees: Pure Food Advisory Committee, Building Advisory Committee, New South Wales Film Council, Diphtheria Advisory Committee and others from time to time. In addition he acts as tutor in environmental sanitation to students attending the course of the Diploma of Public Health at Sydney University, and also at the request of various authorities he meets many overseas students and visitors under the auspices of the World Health Organisation, Colombo Plan, etc., and demonstrates to them the various public health projects and practices in this City.

HUNTER RIVER HEALTH DISTRICT — REPORT FOR THE YEAR 1958

Medical Officer of Health: T. L. Dunn, M.B., B.S., D.T.H., D.T.M., D.P.H.

Staff Changes

A second visiting Tuberculosis Nurse was appointed and commenced duties on 26th August, 1958.

The District

In August, 1958, Lower Hunter and Kearsley Shires were abolished and the Municipalities of Cessnock, Maitland and Newcastle reconstituted and some of the rural areas were incorporated in the Shires of Patrick Plains and Dungog which were not within the Health District.

The Hunter Health District has not been defined since these changes took place, but consists in the main of the Municipalities of Greater Cessnock, Maitland, Singleton, Newcastle and the Shires of Lake Macquarie and Port Stephens.

Vital Statistics — 1958

Population — The population of the district at 30th June, 1958 was estimated at 302,010.

Live Births — There were 6,714 live births to mothers resident in the district, equivalent to a rate of 22.23 per 1,000 population. Of these, 3,507 were males and 3,207 females.

Deaths — Deaths of residents numbered 2,717, equivalent to a rate of 9.00 per 1,000 of population. Of these, 1,522 were males and 1,195 females.

Infantile Mortality — Deaths under one year of age numbered 170, equivalent to a rate of 25.32 per 1,000 live births.

Of the total number of deaths of infants under one year of age, 107 or 62.9 per cent. occurred within one week of birth, and 124 or 72.9 per cent. within the first month. The corresponding rates per 1,000 live births for the two age groups were 15.94 and 18.47 respectively.

Still Births — There were 106 still births to mothers resident in the district, equal to a rate of 0.35 per 1,000 of population, and representing 1.55 per cent. of all births (live and still).

HUNTER RIVER HEALTH DISTRICT—CAUSES OF DEATH OF CHILDREN UNDER ONE YEAR OF AGE, 1958

International Code No.	Cause of death	Number of deaths		
		Males	Females	Persons
	Infective and parasitic Diseases—			
053	Septicaemia and pyaemia	1	..	1
057	Meningococcal infections	2	..	2
082	Acute infectious encephalitis .. .. .	..	1	1
	Neoplasms—			
193	Malignant neoplasm of brain and other parts of nervous system .. .. .	..	1	1
	Mental, Psychoneurotic, and Personality Disorders—			
325	Mental Deficiency .. .. .	..	1	1
	Diseases of the Nervous System and Sense Organs—			
330	Subarachnoid haemorrhage .. .. .	..	1	1
331	Cerebral haemorrhage .. .. .	..	1	1
340	Meningitis, except meningococcal and tuberculous .. .. .	..	2	2
344	Late effects of intracranial abscess or pyogenic infection	1	..	1
	Diseases of the Circulatory System—			
431	Acute myocarditis not specified as rheumatic	1	..	1
455	Gangrene of unspecified cause .. .. .	..	1	1
	Diseases of the Respiratory System—			
474	Acute laryngitis and tracheitis	1	..	1
490	Lobar pneumonia	2	..	2
491	Bronchopneumonia	3	2	5
492	Primary atypical pneumonia	2	1	3
493	Pneumonia, other and unspecified	1	2	3
500	Acute Bronchitis	2	..	2
501	Bronchitis unqualified	2	..	2
518	Empyema	1	..	1
527	Other diseases of lung and pleural cavity (including emphysema without mention of bronchitis)	2	..	2
	Diseases of the Digestive system—			
571	Gastro-enteritis and colitis, except ulcerative age of four weeks and over	2	..	2
587	Diseases of pancreas .. .. .	..	3	3
	Diseases of the Genito-Urinary System—			
590	Acute nephritis .. .. .	..	1	1

HUNTER RIVER HEALTH DISTRICT—CAUSES OF DEATH OF CHILDREN UNDER ONE YEAR OF AGE,
1598—*continued*

International Code No.	Cause of Death	Number of Deaths		
		Males	Females	Persons
	Congenital Malformations—			
750	Monstrosity	1	1	2
751	Spina bifida and meningocele .. .. .	..	4	4
752	Congenital hydrocephalus	3	2	5
753	Other congenital malformations of nervous system and sense organs	1	..	1
754	Congenital malformations of circulatory system	8	4	12
756	Congenital malformations of digestive system	2	..	2
757	Congenital malformations of genito-urinary system	1	..	1
759	Other and unspecified congenital malformations not elsewhere classified	3	..	3
	Certain Diseases of Early Infancy—			
	Intracranial and spinal injury at birth—			
7600	Without mention of immaturity	5	1	6
7605	With immaturity	5	..	5
	Other birth injury—			
7610	Without mention of immaturity	6	1	7
7615	With immaturity	6	3	9
	Post-natal asphxia and atelectasis—			
7620	Without mention of immaturity	1	2	3
7625	With immaturity	4	..	4
	Pneumonia of newborn—			
7630	Without mention of immaturity	6	3	9
7635	With immaturity	1	1	2
	Neonatal disorders arising from certain diseases of the mother during pregnancy—			
7695	Attributed to "toxaemia of pregnancy," with immaturity	2	1	3
	Haemolytic disease of newborn (erythroblastosis)—			
7700	Erythroblastosis, without mention of nervous affection or immatruity	4	3	7
	Haemorrhagic disease of newborn—			
7710	Without mention of immaturity	1	1	2
7715	With immaturity	2	..	2
	Ill-defined diseases peculiar to early infancy—			
7730	Without mention of immaturity .. .. .	..	1	1
7735	With immaturity	2	..	2
7769	Immaturity, unqualified	23	12	35
	Accidents, Poisonings and Violence—			
916	Accident caused by fire and explosion of combustible materials .. .. .	..	1	1
917	Accident caused by hot substance, corrosive liquid and steam	1	..	1
921	Inhalation and ingestion of food causing obstruction or suffocation .. .. .	..	1	1
	All causes	111	59	170

HUNTER RIVER HEALTH DISTRICT—LIVE BIRTHS, STILL BIRTHS, AND DEATHS—EACH LOCAL GOVERNMENT AREA, 1958

Municipality or Shire (*)	Area (*)	Population 30th June, 1958 (Estimated) (*)	Live Births			Deaths										Stillbirths				
			Total			All ages			Under 1 year			Under 1 month			Under 1 week			Total		
			M.	F.	Total	M.	F.	Total	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	Total
Municipalities—	(sq. Miles)																			
Cessnock, Greater	..	38,740	403	406	809	228	169	397	11	3	14	9	1	10	8	1	9	1	7	8
Maitland	..	27,640	288	287	575	104	125	229	6	4	10	2	2	4	2	2	4	2	4	6
Newcastle	..	141,830	1,564	1,388	2,952	752	618	1,370	49	27	76	36	16	52	30	14	44	26	28	54
Singleton	..	4,750	77	87	164	31	20	51	5	..	5	5	..	5	5	..	5	3	1	4
Shires—																				
Lake Macquarie	..	77,710	1,036	905	1,941	356	236	592	39	23	62	32	18	50	29	15	44	19	12	31
Port Stephens	..	11,340	139	134	273	51	27	78	1	2	3	1	2	3	..	1	1	1	2	3
Total	..	302,010	3,507	3,207	6,714	1,522	1,195	2,717	111	59	170	85	39	124	74	33	107	52	54	106

Note—Births are classified according to the usual residence of the mother, and deaths according to the usual residence of the deceased.
* On the basis of the boundaries existing at 31st December, 1958. From 1st August, 1958, Lower Hunter Shire was abolished and divided between Maitland and Newcastle Municipalities and Dungog and Patrick Plains Shires, and parts of Greater Cessnock Municipality were transferred to Maitland Municipality and Patrick Plains Shire.

Infectious Diseases

Refer to Tables I and II, Section 1—A. Communicable Diseases

	Notified, 1958		Notified, 1957	
	Cases	Deaths	Cases	Deaths
Diphtheria	13	..	7	..
Acute Anterior Poliomyelitis	2	..	3	1
Infantile Diarrhoea	11	2	10	8
Virus Encephalitis	1	1	..	..
Infectious Hepatitis	166	1	181	2
Meningococcal Infection	5	3	4	3
Paratyphoid Fever .. .. .	..	..	1	..
Puerperal Fever	6	1	3	..
Rheumatic Fever	1	..	2	2
Scarlet Fever	95	..	21	..
Tuberculosis	66	24	259	33
Typhoid Fever	3	..	..	..
Typhus Fever	1	..	1	1

General

During the year the Medical Officer of Health was called upon to investigate the management of a Rest Home licensed under the Private Hospitals Act, and following a report on the matter the license was revoked by the Minister.

An investigation was also made into the alleged death of an infant through neglect by a registered Medical Practitioner.

Attention was given to unsatisfactory hygienic conditions in Lake Macquarie Shire, covering sanitary and garbage disposal depots and the general lack of hygiene at the holiday camp sites within this Shire and also in the Shire of Port Stephens. Both Shires have insufficient Inspectorial Staff owing to rapid increase of building and population.

Broken sewer mains and surcharging after heavy rain caused concern in the Belmont Area.

Conferences were held with the Hunter District Water and Sewerage Board, Joint Coal Board and local interested bodies in an attempt to get under way a sewerage scheme for the Charlestown-Windale Area, to provide work for unemployed coal miners and the connection of a portion of Charlestown to the Newcastle Sewerage system is now in hand.

Two cases of typhoid fever and their contacts were investigated, but the origin of the infection was not discovered in either case.

An outbreak of a fever among child inmates of the Watt Street Mental Hospital, first thought to be typhoid was later proved to be due to an allied organism.

Some cases of "Asian" influenza occurred and eighty-two members of the local Police Force were inoculated by the Medical Officer of Health.

The latter conducted medical examinations and Workers' Compensation Medical Boards during the latter 2½ months of the year during the absence on sick leave of the Government Medical Officer.

A follow-up of all known lepers and their contacts on the far North Coast was conducted and no new cases found.

Worm Survey

As a result of the findings of the Worm Survey among Aborigines an additional Trained Nurse was appointed by the Aborigines Welfare Board, and is now stationed at Kempsey. From this centre she has visited and treated aboriginal children resident between Newcastle and the Queensland border.

A survey made in September, 1958, in the Richmond-Tweed Area shows that her efforts at treatment of Ascariasis have had gratifying results as shown in the accompanying table.

								Per cent.
Fingal Point	1953	42.2						
	1958	12.0						
Coraki — Box Ridge	1953	30.0						
	1958	16.6						
Cubawee	1954	56.0						
	1958	13.5						
Cabbage Tree	1953	53.0						
	1958	26.0						

The reduced number of infestations consist of a non co-operative few who have evaded treatment and a number of light infestations insufficient to cause ill health. The aborigines in this area are commencing to realise the significance of these infestations, and their causes and instruction in hygiene has been given by many interested persons and in the Kempsey area to mothers of young children by the staff of the Baby Health Centre who opened a branch centre at the Burnt Bridge Aboriginal Station.

Meat Inspection — Singleton

Meat offered for sale in butchers' shops was inspected periodically during the year. It was found that meat inspection at the local killing yards was unsatisfactory, many bodies showed no sign of inspection whilst others showed that only a partial inspection of the carcass had been made.

In the adjoining Lower Hunter Shire where methodical inspection was carried out among 863 oxen slaughtered, the livers of 112 were found to harbour Hydatid Cysts, stressing the necessity of proper inspection. The Shire of Patrick Plains which surrounds Singleton, but is outside the Hunter Health District, is not co-operative in the matter.

SOUTH COAST HEALTH DISTRICT — REPORT OF THE MEDICAL OFFICER OF HEALTH, FOR THE YEAR ENDED 31st DECEMBER, 1958

Staff

Dr. A. J. Geoffroy, M.B., Ch.M., D.P.H., D.T.M., D.T.H., Medical Officer of Health; One Senior Health Inspector; One Stenographer.

Staff Changes — There were no staff changes during the year.

Local Authorities

The South Coast Health District comprises 11 Municipalities and Shires as stated hereunder:—

Municipalities — Bowral, Camden, Campbelltown, Kiama, Shellharbour, City of Greater Wollongong.

Shires — Mittagong, Shoalhaven, Sutherland, Wingecarribee, Wollondilly.

Description

The boundaries of the South Coast Health District extend in the north along the southern shores of the Georges River, westward to the Warragamba River where it joins the Mitchell Health District. The Pacific Ocean forms the eastern border of the District from the Georges River in the north to Durras Water in the south. The western border extends from the Main Dividing Range along the boundaries of the Wollondilly, Shoalhaven Shires to Currowan Creek.

The District is watered by the Shoalhaven, Clyde, Wollondilly, Wingecarribee and Nepean rivers. Within its boundaries are the catchment area of the Sydney Water Supply with dams and reservoirs at Nepean, Avon, Cataract and Cordeaux, and Warragamba under construction.

The Coastal Range separates the narrow coastal strip of land from the Tablelands.

The chief towns are the City of Greater Wollongong, Sutherland, Nowra, Bowral, Moss Vale, Camden, Campbelltown, Mittagong, Picton and Kiama. Many tourist resorts and places of interest are to be found within the District: The Royal National Park, Lake Illawarra, Jervis Bay, the Kangaroo Valley, Burratorang Valley and the Wombeyan Caves.

The South Coast Health District is a centre of the Dairying and Pastoral industries. The Chief dairy cattle centres are in the Camden and Gerringong-Jamberoo districts, whilst the pastoral areas are mainly on the Tablelands. From Coalcliff to Dapto coal mining is an important industry. Heavy industry is carried out in the Port Kembla district, south of the City of Wollongong and has a most important bearing on the present and future development of the South Coast District.

Vital Statistics, 1958

Population — The population of the district at 30th June, 1958, was estimated at 283,230.

Live Births — There were 7,361 live births to mothers resident in the district, equivalent to a rate of 25.99 per 1,000 of population. Of these 3,744 were males and 3,617 females.

Deaths — Deaths of residents numbered 1,889, equivalent to a rate of 6.67 per 1,000 of population. Of these 1,119 were males and 770 females.

Infantile Mortality — Deaths under one year of age numbered 148, equivalent to a rate of 20.11 per 1,000 live births.

Of the total number of deaths of infants under 1 year of age, 90 or 60.8 per cent. occurred within one week of birth and 104 or 70.3 per cent. within the first month. The corresponding rates per 1,000 live births for the two age groups were 12.23 and 14.13 respectively.

Still Births — There were 102 still births to mothers resident in the district, equal to a rate of 0.36 per 1,000 of population and representing 1.37 per cent. of all births (live and still).

SOUTH COAST HEALTH DISTRICT — CAUSES OF DEATH OF CHILDREN UNDER ONE YEAR OF AGE, 1958

International Code No.	Cause of Death	Number of Deaths		
		Males	Females	Persons
	Infective and Parasitic Diseases —			
053	Septicaemia and pyaemia .. .. .	..	2	2
057	Meningococcal infections	1	..	1
087	Chickenpox .. .. .	..	1	1
	Neoplasms —			
200	Lymphosarcoma and reticulosarcoma .. .. .	..	1	1
	Mental, Psychoneurotic, and Personality Disorders —			
325	Mental deficiency .. .. .	..	1	1
	Diseases of the Nervous System and Sense Organs —			
340	Meningitis, except meningococcal and tuberculous	1	..	1
	Diseases of the Respiratory System —			
490	Lobar pneumonia .. .. .	..	1	1
491	Bronchopneumonia	8	1	9
493	Pneumonia, other and unspecified	3	2	5
500	Acute bronchitis	1	1	2
527	Other diseases of lung and pleural cavity (including emphysema without mention of bronchitis) .. .. .	..	1	1
	Diseases of the Digestive System —			
560	Hernia of abdominal cavity without mention of obstruction	1	..	1
571	Gastro-enteritis and colitis, except ulcerative, age four weeks and over	2	..	2
	Diseases of the Genito-urinary System —			
600	Infections of kidney	1	..	1
	Congenital Malformations —			
750	Monstrosity	2	1	3
751	Spina bifida and meningocele	4	1	5
752	Congenital hydrocephalus	1	1	2
754	Congenital malformations of circulatory system	8	8	16
759	Other and unspecified congenital malformations, not elsewhere classified	3	1	4
	Certain Diseases of Early Infancy —			
	Intracranial and spinal injury at birth —			
7600	Without mention of immaturity	5	..	5
7605	With immaturity	2	..	2
	Other Birth Injury —			
7610	Without mention of immaturity	3	1	4
7615	With immaturity	3	3	6
	Post-natal asphyxia and atelectasis —			
7620	Without mention of immaturity	4	3	7
7625	With immaturity	2	2	4
	Pneumonia of newborn —			
7630	Without mention of immaturity	3	3	6
7635	With immaturity .. .. .	..	2	2
	Neonatal disorders arising from certain diseases of the mother during pregnancy —			
7695	Attributed to "toxaemia of pregnancy", with immaturity	1	..	1
	Haemolytic diseases of newborn (erythroblastosis) —			
	Eythroblastosis without mention of nervous affection —			
7700	Without mention of immaturity .. .. .	..	1	1
7705	With immaturity	1	2	3
	Haemorrhagic disease of newborn —			
7710	Without mention of immaturity	1	..	1
7715	With immaturity	1	..	1
7730	Ill-defined diseases peculiar to early infancy, without mention of immaturity	2	..	2
7769	Immaturity, unqualified	23	18	41
	Symptoms and Ill-defined Conditions —			
795	Ill-defined and unknown causes of mortality	1	..	1
	Accidents, Poisonings and Violence —			
916	Accident caused by fire and explosion of combustible material	1	..	1
924	Accidental mechanical suffocation in bed and cradle	1	..	1
	All Causes	90	58	148

SOUTH COAST HEALTH DISTRICT—LIVE BIRTHS, STILL BIRTHS AND DEATHS—EACH LOCAL GOVERNMENT AREA—1958

Municipality or Shire	Area (sq. miles)	Population 30th June 1958 (Estimated)	Live Births			Deaths										Still Births				
			Total			All Ages			Under 1 Year			Under 1 month			Under 1 Week			Total		
			M.	F.	Total	M.	F.	Total	M.	F.	Total	M.	F.	Total	M.	F.	Total	M.	F.	Total
Municipalities —																				
Bowral ..	11.5	4,910	43	29	72	18	22	40	..	..	..	..	..	..	..	..	2	2	4
Camden ..	79.6	5,170	65	60	125	25	16	41	1	1	2	..	..	..	..	..	2	2	4
Campbelltown ..	120.4	12,440	136	151	287	58	34	92	4	1	5	2	1	3	2	2	2	2	4	
Kiama ..	98.9	4,800	50	39	89	23	22	45	1	2	3	1	2	3	1	2	..	1	1	
Shellharbour ..	59.5	7,700	102	103	205	21	18	39	3	1	4	2	..	2	2	..	1	2	3	
Wollongong, Greater ..	275.6	112,390	1,468	1,364	2,832	439	270	709	36	16	52	27	9	36	22	20	27	27	47	
Shires —																				
Mittagong ..	570.4	5,800	52	31	83	20	18	38	1	..	1	1	..	1	1	..	..	2	2
Shoalhaven ..	1,799.3	19,090	293	285	578	104	69	173	9	7	16	5	6	11	3	6	3	9	9	
Sutherland ..	143.0	91,530	1,339	1,339	2,678	319	241	560	31	20	51	23	14	37	20	12	11	23	23	
Wingecarribee ..	460.7	7,600	79	82	161	35	23	58	2	4	6	1	3	4	1	2	..	2	2	
Wollondilly ..	987.6	11,800	117	134	251	57	37	94	2	6	8	2	5	7	2	..	3	3	3	
Total ..	4,606.5	283,230	3,744	3,617	7,361	1,119	770	1,889	90	58	148	64	40	104	54	47	55	102	102	

Note—Births are classified according to the usual residence of the mother, and deaths according to the usual residence of the deceased.

Changes in Local Government Areas

The boundaries of Local Government Areas have remained unchanged during the year throughout the District.

Notifiable Diseases

Refer to Tables I and II, Section 1—A. Communicable Diseases.

There were 245 cases of infectious diseases with six deaths notified to this office during the year 1958, compared with 496 cases and six deaths for the year 1957.

	Notified 1958		Notified 1957	
	Cases	Deaths	Cases	Deaths
Diphtheria	1	..	7	1
Scarlet Fever	44	..	42	..
Poliomyelitis	3	..	5	..
Meningococcal Infection	6	1	9	..
Virus Encephalitis	1	..	2	1
Infantile Diarrhoea	6	2	14	2
Rheumatic Fever	8	2	11	1
Chorea (Rheumatic) .. .. .	..	..	1	..
Paratyphoid Fever	1	..	1	..
Puerperal Fever	4	..	3	..
Brucellosis	2	..	1	..
Ascariasis	2	..	..	..
Infectious Hepatitis	167	1	400	1

There were no cases of Ancylostomiasis, Rheumatic Chorea, Leptospirosis, Ornithosis, Tyhpoid Fever, Typhus Fever nor Staphylococcal Infections notified during the year 1958.

Poliomyelitis

The Poliomyelitis Vaccination Campaigns were continued throughout the year. The response to the campaign was excellent, about eighty per cent. of the child population have been fully immunised.

It is regretted, however, to state that there has been some fall out in the number of third injections expected, particularly in the Shire of Sutherland. The total injections given in that area, however, was very satisfactory, a total of 17,090 injections being given to children, and 10,253 to adults, making a grand total of 27,343 for the Shire. During the year 1958, only three cases of poliomyelitis were notified to this Office. There were no deaths.

Infectious Hepatitis

There was a marked falling off in the number of cases of Infectious Hepatitis notified to this office during the year. One hundred and sixty-seven cases, of which 81 (48.5 per cent.) occurred in the Shire of Sutherland, and 26 in City of Greater Wollongong, compared with 400 cases, 109 from Sutherland and 156 from Wollongong in 1957. Nearly two-thirds (64.1 per cent.) of all cases notified occurred in these two Local Government Areas, both of which are centres of large and increasing populations, and have extensive tourist and holiday resorts. In addition both areas are mainly unsewered.

Anti-Diphtheria Immunisation Campaigns

During the year, an Anti-Diphtheria Campaign was conducted by the Shire of Shoalhaven.

Because of the work involved in conducting polio vaccination campaigns and the extra call on the time of the medical practitioners and nurses, difficulty was experienced in arranging for more campaigns. In one case, however, a proposed anti-diphtheria campaign was postponed owing to the extremely poor response. However, it is expected that now the polio vaccinations are decreasing in numbers, anti-diphtheria campaigns will be resumed in the next year.

General

Except for the notifications of 167 cases of Infectious Hepatitis during the year 1958, there were only 78 other cases of infectious diseases notified. Scarlet Fever accounted for 44 of these, leaving 34 for all other diseases. This is very satisfactory.

Tuberculosis

During the year 1958, 63 cases of Tuberculosis were notified to this office, similar to year 1957.

The Anti-Tuberculosis Clinic located at the Wollongong District Hospital and supervised by Sister Cripps of the Health Department, Sydney, continued to do valuable work.

Influenza

During the year 1958 an Anti-Influenza Vaccination Campaign was carried out at this office for the personnel of the Wollongong Police District — 120 police officers and staff were immunised.

Medical Examinations

During the year 76 medical examinations were carried out at this office on behalf of the Public Service Board, Maritime Services Board, Department of Public Health, the Electricity Commission of New South Wales the Main Roads Board, Department of Education, Department of Technical Education, the Ministry of Transport and the Rural Bank of New South Wales.

Health Education

During the year 1958 —

- (1) Information on health matters was given to members of the general public.
- (2) Distribution of booklets and pamphlets.
- (3) Articles on health matters were supplied to the local press within the Health District.
- (4) Booklets and pamphlets were also supplied to General Medical Practitioners on request for distribution to patients.

Noxious Trades Act, 1902-1944

During the year 116 inspections of noxious trades premises were made. Applications for licenses under the Act were received as follows:—

Fat Extractors	..	..	..	..	..	..	..	..	27
Pig-keepers	..	..	..	..	..	..	..	..	33
Gut Scrapers	..	..	..	..	..	..	..	..	2
Poultry Farmers	..	..	..	..	..	..	..	..	2
Knackers	..	..	..	..	..	..	..	..	3
									<hr/> 67

All premises were inspected and recommendations forwarded to the Board of Health. Applications for licenses for two-pig-keepers and three fat extractors were refused by the Board.

Satisfactory conditions were found at most premises. Where conditions warranted it, traders were directed to improve their premises to a more satisfactory standard.

During the year fewer noxious trades premises were registered, the trades concerned being pig-keeping, fat extracting and poultry farming. A casing cleaner and rag collector did not renew licenses.

Cattle Slaughtering

Thirty-seven inspections of cattle slaughtering premises were made during the year. Appropriate advice was given to the trade for the improvement of unsatisfactory conditions.

Septic Tanks

During the year 1958, a record number of 747 applications for septic tank installations was received at this office, compared with 677 in 1957 and 559 in 1956, making a total of 1,983 for the past three years.

Of these, 331 applications were received from the Shire of Sutherland, and 261 from the City of Greater Wollongong, a total of 592, being 79.25 per cent. of total applications received for the year.

The progressive increase in the number of applications for the construction of septic tanks is commensurate with the increase in building operations, particularly in the Local Government Areas of Sutherland and the City of Greater Wollongong.

During the year, 915 proposed sites for septic tanks were inspected, and there were thirty inspections of existing septic tanks. Seventy-one applications for septic tanks were recommended to the Board of Health for refusal. In some cases, amended applications were received, and were recommended for approval.

During the latter months of the year, the Local Government Act and Ordinances were amended to include the construction of single treatment type septic tanks. This was followed by an immediate increase in the number of applications for construction of septic tanks, practically all applications being made for the amended type tank.

Septic Closets

One thousand two hundred and ninety-three applications for installation of septic closets were received at this office during the year 1958. This was an increase of 303 or 30.6 per cent. over the preceding year.

Since the latter quarter of the year 1956, when the Local Government Act and Ordinances were amended to include this type of sanitary convenience, a total of 2,405 applications for septic closet installations have been received.

Since the amendment of the Local Government Act and Ordinances to include single treatment type septic tanks, there was an immediate drop in the number of applications for septic closets received at this office.

Sanitary Conveniences

During the year 1958, 2,040 applications for septic tank and septic closet installations were received at this office. Comparative figures for the year 1957 were 1,667. It is noted that this is an increase of 373 applications or an increase of 22.4 per cent. over the preceding year.

The greatly increased number of applications for the installation of sanitary conveniences is evidence of the awakened interest of the population generally in having better sanitary conditions in their homes and surroundings.

Sewerage

In the South Coast Health District only the towns of Bowral, Camden, Campbelltown, Mittagong, Moss Vale, Nowra, part of the City of Greater Wollongong and the Cronulla District of the Shire of Sutherland are sewered.

Extensions to the existing system is being made progressively in the Shire of Sutherland and the City of Greater Wollongong.

Two sewerage treatment works were inspected, and an investigation made re a proposal for sewerage extension.

Nightsoil Disposal

Fifty-three inspections of nightsoil depots were made during the year and five inspections made of sites for proposed sanitary depots. During the year complaints regarding inadequate or faulty rendering of sanitary services were received. Investigations of these complaints were made, and where necessary instructions issued to local authorities to cause the sanitary services to be rendered in accordance with the provisions of the Local Government Ordinances.

Garbage Disposal

During the year 1958, 47 inspections of garbage depots were made. Where necessary the attention of the Local Authority was directed towards a more satisfactory maintenance of the depots.

Some complaints re nuisances arising from rat infestation, noxious odours, flies and smoke were received and promptly attended to. On the whole, these depots have been satisfactorily maintained.

Smoke and Fume Nuisances

Complaints of smoke and fume nuisance of industrial plants were received and investigated.

A general survey of the nuisances in the South Coast Health District is being conducted by officers of the Industrial Hygiene Branch, Health Department, Sydney.

Complaints

One hundred and fifty-seven complaints of alleged nuisances were received at this office, and were investigated during the year. These complaints related to unsatisfactory nightsoil and garbage services, sanitary and drainage nuisances, inadequate disposal of sullage waters on premises, smoke nuisances, water supplies and food premises.

Inspections were made of three insanitary buildings, forty-two buildings and yard premises, six barbers shops, one guest house and eleven public halls.

Hotel Premises

Two hotel premises were inspected during the year and appropriate action taken regarding matters investigated.

Pure Food Act

Throughout the year, Inspectors of the Pure Food Branch of the Department of Health, Sydney, visited the South Coast Health District. Numerous inspections of food premises were carried out under the Pure Food Act, 1908, and prosecutions arising out of such inspections were conducted. Fines were imposed by the Court for breaches of the Act and Regulations.

Additional inspections were made of food premises by this office. These included cafes, baker shops and bakehouses, butchers' shops, greengrocers, street traders and the Wollongong City Markets. In all 69 inspections were made.

No prosecutions were undertaken by this office, but appropriate advice and warnings were given to traders where necessary.

Water Supplies

During the year, 17 town and other water supplies were investigated, and 36 water samples were taken and forwarded for chemical and bacteriological examination to the Government Analyst and the Director of Pathological Laboratories. Additional samples were collected by the local authorities and forwarded for analysis and examination.

In connection therewith, appropriate advice was given to the officers of the local authorities. In some instances joint investigations were made by officers of both this Department and the Local Authority.

Swimming Pool

Inspection of one public swimming pool was made during the year and appropriate advice given to the local authority concerned. Water samples were taken for chemical examination and analysis.

Tourist and Holiday Camps

A general survey of camping areas and holiday cabin areas in the district was made during the year. In all, eighteen inspections were made, and conditions were found to be generally satisfactory. Recommendations were made to the local authorities concerned, which resulted in a noticeable improvement in the sanitary arrangements and water supplies in some areas.

Inspections and Investigations

Excluding inspections of septic tank sites and septic tanks, 602 inspections and investigations were made of places and matters requiring the attention of this office.

General

Over a period of some years, the population of the South Coast Health District has been steadily increasing. This increase is chiefly in the City of Greater Wollongong and the Shire of Sutherland.

In the City of Greater Wollongong, an extensive building programme of heavy industry and works relating to the construction of the Inner Harbour at Port Kembla is being maintained. In addition, the establishment of new industries, factory premises, and large business premises in the city proper is taking place.

In the Shire of Sutherland, an all time high record year in building was recorded, 3,320 building applications were received by the Local Authority at a value of £8,133,771.

The increase in building operations, both industrial and residential, has resulted in a corresponding demand in this office for supervising inspections relating to drainage and sullage disposal, and installations of septic tanks and closets.

In addition to this increase in inspectorial work, there has also been a large proportional increase in office duties and routine.

MITCHELL HEALTH DISTRICT — REPORT OF THE MEDICAL OFFICER OF HEALTH FOR THE YEAR ENDED 31st DECEMBER. 1958

Staff

Dr. E. C. Wallace, Medical Officer of Health.

Mr. R. O. McDonough, Senior Health Inspector.

Mrs. P. M. Johnson, Office Assistant (commenced leave on 25th June, 1958, prior to resignation on 7th August, 1958).

Miss P. E. Wallace, Office Assistant, (commenced 23rd June, 1958).

Local Authorities

The District comprises:—

Municipalities — City of Bathurst, City of Blue Mountains, City of Lithgow, City of Orange, Municipality of Mudgee.

Shires — Abercrombie, Blaxland, Cudgong, Gulgong, Lyndhurst, Molong, Oberon, Rylstone, Turon, Wellington.

N.B.— Shire of Gulgong was, in 1956 absorbed partly by Cudgong Shire and partly by Coolah Shire (outside the District). Re-definition of the area accordingly is pending.

As previously reported neither Turon nor Abercrombie Shires employ a health inspector. This Office has made representations from time to time about this to the respective Councils. However, pending the result of the Boundaries Enquiry (for the Minister for Local Government), these Shire Councils are unwilling to appoint a health inspector.

Elsewhere staffing is reasonably good, and local authorities look to this Office for help and guidance with their various problems. During the year these have been numerous, especially with public water supplies. This Office has been able to give very great assistance, placed as it is between local authorities and Head Office in Sydney, and able to call on skilled and experienced Officers to come into the District to see things for themselves and give advice.

Two conferences of Health Inspectors were held during the year. In February, Col. John Lillywhite, Department of Civil Defence addressed a meeting at Katoomba on Nuclear Warfare. Films were shown and instruments for the detection of radio activity. Col. Lillywhite outlined plans for Civil Defence throughout New South Wales to meet various civil emergencies. At Wellington in June, 1958, Mr. D. Christie, Agriculture Department, Orange, addressed Health Inspectors on "Animal Diseases Transmissible to Man", Mr. N. O'Brien, Milk Board Inspector gave a talk on milk testing and Dr. E. Wallace a talk on Public Water Supplies. Attendances were good and the Inspectors gained a lot from the material presented and the contacts made.

Vital Statistics, 1958

Population — The population of the district at 30th June, 1958, was estimated at 137,850.

Live Births — There were 3,210 live births to mothers resident in the district, equivalent to a rate of 23.29 per 1,000 of population. Of these 1,645 were males and 1,565 females.

Deaths — The deaths of residents numbered 1,271, equivalent to a rate of 9.22 per 1,000 of population. Of these 736 were males and 535 females.

Infantile Mortality — Deaths under 1 year of age numbered 71, equivalent to a rate of 22.12 per 1,000 live births.

Of the total number of deaths of infants under 1 year of age, 43 or 60.6 per cent. occurred within one week of birth and 56 or 78.9 per cent. within the first month. The corresponding rates per 1,000 live births for the two age groups were 13.43 and 17.45 respectively.

Still Births — There were 71 still births to mothers resident in the district, equal to a rate of 0.52 per 1,000 of population and representing 2.16 per cent. of all births (live and still).

MITCHELL HEALTH DISTRICT — CAUSES OF DEATH OF CHILDREN UNDER ONE YEAR OF AGE, 1958

International Code No.	Cause of Death	Number of Deaths		
		Males	Females	Persons
020	Infective and Parasitic Diseases —			
	Congenital syphilis .. .. .	..	1	1
	Diseases of the Nervous System and Sense Organs —			
340	Meningitis, except meningococcal and tuberculous	1	..	1
343	Encephalitis, myelitis, and encephalomyelitis (except acute infectious)	1	..	1
	Diseases of the Respiratory System —			
491	Bronchopneumonia	2	1	3
493	Pneumonia, other and unspecified .. .. .	..	1	1
500	Acute bronchitis	1	..	1
501	Bronchitis unqualified .. .. .	..	1	1
	Diseases of the Digestive System —			
571	Gastro-enteritis and colitis, except ulcerative, age four weeks and over	1	..	1
587	Diseases of pancreas .. .. .	..	1	1
	Diseases of the Genito-Urinary System —			
600	Infections of Kidney .. .. .	..	1	1
	Congenital Malformations —			
751	Spina bifida and meningocele	2	1	3
752	Congenital hydrocephalus	1	..	1
754	Congenital malformations of circulatory system	2	1	3
756	Congenital malformations of digestive system	2	..	2
	Certain Diseases of Early Infancy —			
	Intracranial and spinal injury at birth —			
7600	Without mention of immaturity	3	..	3
7605	With immaturity	1	..	1
	Other birth injury —			
7610	Without mention of immaturity .. .. .	..	1	1
7615	With immaturity	2	1	3
	Post-natal asphyxia and atelectasis —			
7620	Without mention of immaturity	1	1	2
7625	With immaturity	1	1	2
7630	Pneumonia of newborn, without mention of immaturity ..	..	2	2
7680	Other sepsis of newborn, without mention of immaturity ..	1	..	1
	Neonatal disorders arising from certain diseases of the mother during pregnancy —			
7699	Attributed to other or unspecified diseases of the mother during pregnancy, with immaturity .. .. .	..	1	1
7710	Haemorrhagic disease of newborn, without mention of immaturity ..	2	..	2
	Ill-defined diseases peculiar to early infancy —			
7730	Without mention of immaturity	1	..	1
7735	With immaturity	3	..	3
7769	Immaturity unqualified	19	6	25
	Accidents, Poisonings, and Violence —			
917	Accident cause by hot substance, corrosive liquid, and steam ..	..	1	1
921	Inhalation and ingestion of food causing obstruction or suffocation .. .. .	..	1	1
924	Accidental mechanical suffocation in bed and cradle	1	..	1
	All Causes	48	23	71

MITCHELL HEALTH DISTRICT—LIVE BIRTHS, STILL BIRTHS AND DEATHS—EACH LOCAL GOVERNMENT AREA—1958

Municipality or Shire	Area (sq. miles)	Population 30th June 1958 (Estimated)	Live Births			Deaths						Still Births		
			Total			All Ages			Under 1 Year			Under 1 Week		
			M.	F.	Total	M.	F.	Total	M.	F.	Total	M.	F.	Total
Municipalities —														
Bathurst ..	11.3	16,990	202	192	394	79	71	150	2	2	4	2	1	3
Blue Mountains ..	538.6	23,640	289	236	525	164	127	291	6	..	6	5	..	5
Lithgow ..	8.0	14,850	177	182	359	81	52	133	7	3	10	5	1	6
Mudgee ..	2.6	5,460	59	58	117	30	24	54	1	..	1	..	..	..
Orange ..	8.1	19,030	262	247	509	113	91	204	11	6	17	8	4	12
Shires —														
Abercrombie ..	898.2	2,970	20	26	46	3	7	10	..	1	1	..	..	..
Blaxland ..	1,331.4	8,900	99	114	213	28	21	49	..	2	2	..	2	2
Canobolas ..	636.2	6,100	46	36	82	19	9	28	1	..	1	..	..	..
Cudgegong ..	2,045.3	6,550	57	87	144	47	24	71	4	1	5	3	..	3
Lyndhurst ..	624.0	6,150	93	71	164	37	23	60	2	1	3	1	1	2
Molong ..	920.4	4,850	64	72	136	17	15	32	3	..	3	..	..	..
Oberon ..	1,129.0	3,600	59	42	101	16	13	29	3	4	7	2	3	5
Rylstone ..	1,478.0	5,100	70	54	124	28	16	44	1	2	3	..	1	1
Turon ..	905.1	2,830	24	19	43	19	6	25	1	..	1	1	..	..
Wellington ..	1,573.6	10,830	124	129	253	55	36	91	6	1	7	4	..	3
Total ..	12,109.8	137,850	1,645	1,565	3,210	736	535	1,271	48	23	71	40	16	56
												30	13	43
												43	28	71

Note—Births are classified according to the usual residence of the mother, and deaths according to the usual residence of the deceased.

Infectious Diseases

								1958	1957
Infectious Hepatitis	..	..	..	..	..	..	..	195	190
Infantile Diarrhoea	..	..	..	..	..	..	..	12 (including 1 death)	8
Rheumatic Fever	..	..	..	..	..	..	..	22 (incl. 5 deaths)	20
Scarlet Fever	..	..	..	..	..	..	..	62	29
Meningococcal Meningitis		..	..	..	..	..	..	2 (including 1 death)	5 (including 1 death)
Virus Encephalitis	..	..	..	..	..	..	..	1	3
Typhoid Fever	..	..	..	..	..	..	..	1 (died)	..
Poliomyelitis	..	..	..	..	..	..	..	1	6
Pharyngeal diphtheria	..	..	..	..	..	..	..	1	..
Brucellosis	..	..	..	..	..	..	..	1	1
Staphylococcal mastitis	..	..	..	..	..	..	..	1	not notifiable
Staphylococcal infection in infants under 4 weeks	..	..	..	..	..	..	..	1	not notifiable

Comment

The pharyngeal diphtheria case occurred in a female aged 19 years living at Bathurst. It was a mild case only.

The typhoid fever case occurred at Gulgong in May. He was a man of 47 years and was looked after in the local hospital as a gastro-enteritis case. He left hospital against advice and was re-admitted in an extremely ill condition. Typhoid was suspected and he was sent to Sydney (Royal North Shore Hospital) where he died. Post Mortem examination and blood culture showed the cause of death to be typhoid. The case was fully investigated including family contacts, but no source of infection was found. Had his case been diagnosed earlier, his life would no doubt have been saved. Unfortunately at the time of his admission there were many other gastro-enteritis cases in hospital and he appeared to the attending doctor as having this, but more severely than the others who all recovered on sulpha drugs.

The brucellosis case occurred at Yeoval in a dairyman. The disease was of insidious onset and infection was probably from contagious abortion in his dairy herd some 12 months previously. The case remained ambulatory. Agglutination test (Board of Health laboratory) showed brucella abortus agglutination of 1 in 1280.

Food Poisoning Outbreak

A sudden outbreak of gastro-enteritis (vomiting, abdominal pain and diarrhoea) affected members of staff and patients at the Queen Victoria Home, Wentworth Falls. An investigation was made and this included the sending of specimens of foodstuffs, vomitus and faeces to the Department's laboratory. The outbreak was typical of staphylococcaltoxin. Staphylococci were found on foodstuffs served some hours before the outbreak. However, no human source of infection could be found.

Outbreak at Katoomba Convention Camp

Thirty five people, mostly children (members of a camp of 76) became ill after a picnic hike at the foot of the cliffs below Katoomba and Wentworth Falls. Several became acutely ill with repeated vomiting and abdominal pains but most escaped with only slight illness. After exhaustive enquiries it seemed the most likely cause was some infection conveyed by drinking polluted water. Some of the streams below these cliffs are liable to pollution by street washings and possibly septic tank effluent. Bacteriological analysis of one stream (Katoomba Cascades) from which the party drank water, showed a high faecal coli count.

It is quite likely that sickness of this sort is quite common among people who visit the Mountains. The streams in a bush setting look innocent; there are no warning notices; hikers become thirsty and unsuspectingly may drink quantities of polluted water. An account of this incident was sent to the Blue Mountains City Council with a recommendation that hikers be suitably warned.

Staphylococcal infection was proclaimed as an infectious disease on 9th September, 1958. Two cases were notified. There were probably many more unnotified cases.

Poliomyelitis is at an all time low with only one case, a male of 8 years at Lithgow.

Tuberculosis in Cattle — Human Strain of Organism

Veterinary officers of the Agriculture Department, Orange brought to notice a high tuberculin — reaction rate amongst cattle tested at Peak Hill in 1957 and 1958. (Peak Hill is just outside the Mitchell Health District.) On slaughter the cattle showed quite extensive lesions in most unusual sites. Material sent for examination revealed organisms to be of the human type

in six cases. Investigation by the Medical Officer of Health disclosed most insanitary conditions in the town. The two herds supplying milk and many privately owned cows had access to ground polluted with septic tank effluent from the local hospital, access to the sanitary depot and the surface catchment dam that drained from it, to a paddock whereon was tipped septic tank effluent from the three hotels, and to the aborigines reserve. It was ascertained there would have been several cases of active tuberculosis living at Peak Hill during the period before the cows were tested. A chest X-ray and skin test survey were made towards the end of the year. The total data of this outbreak are still incomplete, but the facts obtained so far, emphasise the need for proper sanitation.

Anthrax Outbreak

Veterinary Officers of the Agriculture Department, Orange, brought to notice anthrax in a cow in the Molong area. The diagnosis was made after tracing back the likely source of anthrax in a farm worker's dogs. It came out that the cow in question had been cut up in the paddock and the meat distributed. Some was fed to the dogs mentioned. Another portion of meat had been hung in the chiller of a butchers shop and still another piece had been hung in the freezing works chamber which contained numerous rabbit carcasses to be marketed. The Medical Officer of Health and Senior Health Inspector investigated the premises concerned. All anthrax-infected meat was destroyed under supervision by Agriculture Department Officers, and all foodstuffs coming into contact or near contact with it were destroyed and the premises disinfected by hot caustic soda, or, where this treatment was not applicable, by other suitable means. There was no human infection.

Medical Examinations

Entrants into the Service, 7; Casual teacher, 1; Fitness to continue, 3; Travelling concessions, 2; Sick leave, 1; Leprosy contact, 1; Retirement, 1; Day Nursery School Children; Subnormal School Children.

Inspections

	1958	1957
Inspection of septic tank sites	273	299
Inspection of existing septic tanks	60	49
Inspection of noxious trade and slaughtering premises	101	93
Inspection of garbage and sanitary depots	91	70
Inspection of sewage treatment works	11	11
Inspection of water supplies, water catchment, etc.	76	16
Collection of water samples	101	134
Inspection of hotels, cafes, food premises, etc.	221	178
Inspection of closets, yard areas, halls, dwellings, schools, hospitals, etc.	95	130
Attendance at court	10	2
Report on septic closet plans	80	10
Investigation of complaints and nuisances	53	54
Investigation of anthrax outbreak	1	..
General and miscellaneous inspections	44	32

Noxious Trades

Licenses issued in respect of the various noxious Trades were as follows:—

Pig Keeper, 39; Fat extractor, 30; Bone grinder, 2; Blood boiler, 2; Blood dryer, 2; Manure maker, 1; Knacker, 3; Gut scraper, 1; Rag dealer, 1; Tanner, 1; Fellmonger, 1.

Public Water Supplies

Owing to dry conditions, some towns began to suffer from a water shortage, *e.g.*, Molong Orange, and looked around for subsidiary supplies. Orange for example, made use of Lake Canobolas (ordinarily used for swimming, boating and fishing) and considered pumping water from a disused mine shaft. Tests carried out by this Office showed all sources of supply to be polluted and the filtration and chlorination plant incorrectly used. Lake Canobolas water showed faecal coli was being put into the supply without treatment.

At Lithgow bushfires followed by a cloud burst upset the chemico-bacteriological water state. Dirty brown, slimey, smelly water came out of the Lithgow consumers' taps. Understandably this gave rise to many bitter complaints by house-holders.

At Katoomba a subsidiary supply was switched in without prior testing and a physically unsuitable water (dirty with suspended matter) came through to consumers. During severe bushfires in the Blue Mountains area, service reservoirs ran empty and people stood by helpless watching their homes burn.

These major troubles and many minor ones came to the notice of this Office in the summer of 1957-1958 and started off a fairly comprehensive investigation of each town water supply.

Numerous defects came to light and have been reported on fully in submissions to Head Office. Chief among these defects are:—

- (1) Lack of protection of catchment areas and impounding dams from human and animal contamination.
- (2) Lack of proper maintenance of the supply in its various parts — such as periodic cleaning of service reservoirs, flushing of mains and dead ends.
- (3) Lack of regular sampling of the water at the source and at various points of supply.
- (4) Apathy and ignorance on this subject on the part of those whose responsibility it is to provide and maintain a pure and wholesome water supply.

Fact-finding was the most valuable method of approach and in this, officers from the Government Analysts Branch, the Division of Microbiology and the Public Works Department, were called in to help. Mr. J. K. Brown reviewed the bacteriology on this subject and carried out investigations into algae. Mr. Whiteman investigated the chemical problems. On the basis of all the facts found, valuable advice was able to be given to local authorities. In some cases, the recommendations made meant expensive equipment, but it was considered best to aim at the outset for the highest possible standards with public water supplies, even if their being put into effect meant a long wait. Chlorination was advised in many instances as a necessary immediate measure to sterilise polluted water.

Sewage-polluted Macquarie River

In 1957 there was an outbreak of infectious hepatitis (six cases) traceable to the drinking of water of this river downstream from the sewage treatment works. In previous years there had been two cases of typhoid fever traceable to this source of infection. In 1958 it came to notice that dairy cows were allowed access to this river, and that lucerne paddocks were irrigated with it. In conjunction with Milk Board Officers, investigations were carried out. A detailed report was submitted to Head Office and to the Milk Board. The Milk Board took some, but not full measures to stop possible infection of animals and milk from this source. The milk, however, is all pasteurised.

Nuisance from Abattoirs

Another source of stream pollution is from the Blayney Abattoirs. In September, 1957, a County Council was established to undertake the killing of meat to serve Bathurst, Lithgow and Orange, and Blaxland and Lyndhurst Shires.

This is the Blayney (Abattoir) County Council which renovated and extended Swifts meat works at Blayney. From the outset this Office kept this undertaking under scrutiny as trouble was anticipated with the inadequate save-all and drainage provided. Advice was given to the management on proper waste disposal. However, as time went on, the inadequacy of the measures taken to dispose of wastes resulted in most insanitary conditions — fly breeding, fly strike of the meat, and heavy pollution of a nearby stream (a tributary of the Belabula River). Several times the pumps, which distributed the effluent onto the disposal area on adjacent hill sides, broke down, and blood, faecal matter and fleshings entered the stream.

A conference of representative interests was held on the site to examine and advise the management. These representatives included an entomologist (Agriculture Department) an Officer from the Pure Food Branch (Health Department), the Health Department's Noxious Trade Officer, the consulting engineer from the Abattoirs, the Senior Inspector and the Medical Officer of Health. However, matters were too slow to improve and prosecution was recommended.

Subnormal Children

The Bathurst School for Subnormal Children formed in 1957 proved so successful that a similar school was started in Orange. The procedure followed was for the Medical Officer of Health to contact as many as possible of those workers who might know of subnormal children — (Infants Headmistress, Child Welfare Officer, doctors, etc.) — to compile a list, visit the parents individually and see the children. About fifteen children were listed. A preliminary meeting was called of parents and citizens who might help (members of service clubs mostly) and a provisional committee was formed. Interest and activity increased — the subject was given publicity and at a well-attended public meeting a branch of the Subnormal Children's Welfare Association was formed. Donations poured in and before long a school was under way with an enrolment of some eight children. This procedure could well be repeated throughout the State. Subnormal children are not registered in any way but have to be searched for. Parents are reticent — there is often the feeling of guilt and shame which must be overcome. Often they have tried to get their children placed in institutions, but have failed and lost heart. To bring such people together in the right way is necessarily an individual thing and time consuming. However, these day schools are so valuable as to make the time and effort spent very worthwhile.

The Medical Officer of Health arranged for Mr. T. Wells to visit the District. Mr. Wells is headmaster of the Cromehurst Special School for Subnormal Children in Lindfield. The intention was to stimulate interest in the teaching of the subnormal. The visit was a great success. Mr. Wells made a great impression on the various parents, teachers and committee groups who came to hear him talk on this subject.

Health Education

Early in the year it was arranged that Mr. G. Slough and Mr. Bentley of the Department's Publicity Branch visit the District in order to screen films. By arrangement with Abercrombie, Turon and Blaxland Shires, health films were shown to school children and adults living in the more remote villages. The programme established good relations, aroused interest in public health and was well worthwhile.

Occupational Health

At the request of and, in company with the Medical Officer of Health, Mr. Weston, Scientific Officer, Industrial Hygiene Division, visited the District to test for excessive noise in factories and workshops. The Bathurst District Hospital was also visited as there had been complaint of noise from the laundry disturbing ward patients. Excessive readings were found in some parts of the factories tested. Suggestions were made to the management on noise control.

RICHMOND-TWEED HEALTH DISTRICT — ANNUAL REPORT OF MEDICAL OFFICER OF HEALTH, 1958

Staff

Medical Officer of Health: Dr. H. R. Dugdale, from 8th December, 1958.

Senior Health Inspector: W. Murphy, 7th October, 1958.

The Office opened officially on the 8th December, 1958, having been closed since September, 1956.

The District

Municipalities — Ballina, Casino, City of Grafton, City of Lismore, Mullumbimby.

Shires — Byron, Copmanhurst, Gundurimba, Kyogle, Maclean, Terania, Tintenbar, Tomki, Tweed, Ulmarra, Woodburn.

Vital Statistics, 1958

Population — The population of the district at 30th June, 1958, was estimated at 123,920.

Live Births — There were 2,956 live births to mothers resident in the district, equivalent to a rate of 23.85 per 1,000 of population. Of these 1,539 were males and 1,417 females.

Deaths — The deaths of residents numbered 923 equivalent to a rate of 7.45 per 1,000 population. Of these 546 were males and 377 females.

Infantile Mortality — Deaths under 1 year of age numbered 46 equivalent to a rate of 15.56 per 1,000 live births.

Of the total number of deaths of infants under a year of age, 32 or 69.6 per cent. occurred within one week of birth, and 34 or 73.9 per cent. within the first month. The corresponding rates per 1,000 live births for the two age groups were 10.83 and 11.50 respectively.

Still Births — There were 43 still births to mothers resident in the district, equal to a rate of 0.35 per 1,000 of population and representing 1.43 per cent. of all births (live and still).

RICHMOND-TWEED HEALTH DISTRICT — CAUSES OF DEATH OF CHILDREN UNDER ONE YEAR OF AGE,
1958

International Code No.	Cause of Death	Number of Deaths		
		Males	Females	Persons
	Diseases of the Respiratory System —			
491	Bronchopneumonia	3	..	3
493	Pneumonia, other and unspecified	3	..	3
500	Acute bronchitis	1	..	1
501	Bronchitis unqualified	1	..	1
	Diseases of the Digestive System —			
571	Gastro-enteritis and colitis, except ulcerative, age four weeks and over	1	..	1
	Congenital Malformations —			
750	Monstrosity	2	..	2
752	Congenital hydrocephalus .. .. .	..	1	1
754	Congenital malformations of circulatory system	3	1	4
755	Cleft palate and harelip	1	..	1
756	Congenital malformations of digestive system	1	..	1
758	Congenital malformations of bone and joint	1	..	1
	Certain Diseases of Early Infancy —			
	Intra-cranial and spinal injury at Birth —			
7600	Without mention of immaturity	1	1	2
7605	With immaturity	4	..	4
	Other birth injury —			
7610	Without mention of immaturity .. .. .	..	1	1
7615	With immaturity	2	1	3
	Post-natal asphyxia and atelectasis —			
7620	Without mention of immaturity	1	..	1
7625	With immaturity	2	..	2
	Haemolytic disease of newborn (erythroblastosis) —			
7700	Erythroblastosis without mention of nervous affection or immaturity	2	..	2
7769	Immaturity, unqualified	7	5	12
	All Causes	36	10	46

RICHMOND-TWEED HEALTH DISTRICT—LIVE BIRTHS, STILL BIRTHS AND DEATHS—LOCAL GOVERNMENT AREA—1958

Municipality or Shire	Area (sq. miles)	Population 30th June 1958 (Estimated)	Live Births			Deaths						Still Births								
			Total			All Ages			Under 1 Year			Under 1 Month			Under 1 Week			Total		
			M.	F.	Total	M.	F.	Total	M.	F.	Total	M.	F.	Total	M.	F.	Total	M.	F.	Total
Municipalities —																				
Ballina ..	9.0	3,650	40	37	77	22	18	40	..	..	..	..	..	..	..	..	1	..	1	1
Casino ..	6.2	8,360	111	98	209	29	27	56	1	..	1	..	..	..	..	..	1	1	2	2
Grafton ..	31.0	15,340	178	151	329	67	57	124	4	2	6	3	2	5	3	2	2	3	5	5
Lismore ..	17.5	19,110	216	218	434	79	83	162	3	2	5	3	1	4	3	1	1	2	3	3
Mullumbimby ..	1.7	2,100	28	21	49	9	5	14	..	..	..	..	..	..	..	..	..	..	..	..
Shires —																				
Byron ..	215.0	8,760	90	84	174	29	24	53	1	..	1	1	..	1	1	..	1	1	2	2
Copmanhurst ..	1209.2	2,540	25	19	44	11	8	19	1	1	2	1	1	2	1	1	2	..	2	2
Gundurimba ..	175.4	3,040	50	40	90	11	8	19	1	1	2	1	..	1	1	..	..	..	..	..
Kyogle ..	1,342.0	11,300	176	166	342	55	32	87	6	1	7	6	..	6	6	..	4	3	7	7
Maclean ..	402.3	6,200	70	65	135	42	26	68	3	..	3	1	..	1	1	..	..	1	1	1
Terania ..	340.0	6,500	95	73	168	27	5	32	4	..	4	4	..	4	4	..	..	1	1	1
Tintenbar ..	179.0	4,620	44	47	91	17	13	30	1	..	1	..	..	..	..	..	1	1	2	2
Tomki ..	437.7	3,320	44	39	83	14	2	16	1	..	1	1	..	1	1	..	3	..	3	3
Tweed ..	503.2	21,590	310	288	598	101	51	152	8	2	10	4	2	6	3	2	5	6	7	13
Ulmarra ..	686.3	3,290	24	23	47	9	3	12	2	1	3	1	1	2	1	1	2	..	..	..
Woodburn ..	541.0	4,200	38	48	86	24	15	39	..	..	..	..	..	..	..	..	..	1	1	1
Total ..	6,096.5	123,920	1,539	1,417	2,956	546	377	923	36	10	46	27	7	34	25	7	32	22	21	43

Note:—Births are classified according to the usual residence of the mother, and deaths according to the usual residence of the deceased.

Notification of Infectious Diseases

See Tables I and II, Section I—A — Communicable Diseases

								Cases	Deaths
Ancylostomiasis	..	..	..	..	..	..	..	3	..
Ascariasis	..	..	..	..	..	..	..	4	..
Infantile Diarrhoea	..	..	..	..	..	..	..	2	..
Virus Encephalitis	..	..	..	..	..	..	..	1	..
Infectious Hepatitis	..	..	..	..	..	..	..	44	..
Leptospirosis	..	..	..	..	..	..	..	17	..
Meningococcal Infection	..	..	..	..	..	..	..	1	..
Puerperal Fever	..	..	..	..	..	..	..	2	1
Rheumatic Fever	..	..	..	..	..	..	..	5	2
Scarlet Fever	..	..	..	..	..	..	..	9	..
Tuberculosis	..	..	..	..	..	..	..	87	1
Typhus Fever	..	..	..	..	..	..	..	3	..

An inspection of the Maclean Fisheries Co-operative Society premises was made on 12th December, 1958, where the manufacture of fish and meat meal was proposed.

On Monday, 15th December, 1958, Dr. Donnelan, Metropolitan Medical Officer of Health arrived in the area and spent the week introducing the Medical Officer of Health to the various local Authorities.

BROKEN HILL AND DISTRICT — REPORT OF MEDICAL OFFICER OF HEALTH — FOR THE YEAR ENDED 31st DECEMBER, 1958

Medical Officer of Health: J. T. Cullen, M.B., B.S.

The population of the Broken Hill Municipal District at 31st December, 1958, was estimated at 33,000 which represents a steady decrease since 1956.

The deaths for the period under review numbered 238. There were 1,060 births.

Infectious Diseases

The Monthly incidence of notifiable diseases was as follows:—

Month						Infectious Hepatitis	Tuberculosis (all forms)	Meningococcal Septicaemia	Infantile Diarrhoea
January	..	..	..	..	..	..	3	..	..
February	..	..	..	..	..	..	2	..	..
March	..	..	..	..	..	..	1	..	..
April	..	..	..	..	..	..	2	..	..
May	..	..	..	..	..	1	..	..	..
June	..	..	..	..	..	..	3	1	1
July	..	..	..	..	..	1	3	..	..
August	..	..	..	..	..	3	1	..	..
September	..	..	..	..	..	..	..	..	..
October	..	..	..	..	..	3	2	..	..
November	..	..	..	..	..	..	3	..	..
December	..	..	..	..	..	1	..	..	..
Totals	..	..	..	..	..	9	20	1	1

No other diseases were notified.

The incidence of notifiable diseases at Broken Hill, during the past five years is shown in the following table:—

Disease	1954	1955	1956	1957	1958
Typhoid and Paratyphoid .. .. .	..	..	..	..	..
Tuberculosis (all forms)	24	12	12	7	20
Scarlet Fever .. .. .	..	..	..	..	..
Diphtheria	8	3	3	1	..
Meningococcal Meningitis	2	2	..	..	..
Poliomyelitis	1	..	3	..	..
Infectious Hepatitis	19	52	2	2	9
Influenzal Meningitis .. .. .	..	1	..	..	..
Bacillary Dysentery .. .. .	..	..	4	1	..
Infantile Diarrhoea .. .. .	..	1	1	..	1
Staphylococcal Pneumonia .. .. .	..	..	..	1	..
Staphylococcal Septicaemia .. .. .	..	..	..	1	..
Meningococcal Septicaemia .. .. .	..	..	..	..	1
Gastro-enteritis .. .. .	..	..	..	..	1

Miscellaneous Matters

Particulars	Period 1958
Examinations and interviews as M. O. H.	50
Post Mortem Examinations at the request of the Coroner	42
Attendances at Court and giving evidence in Police cases	40
Examinations of arrested persons or prisoners	25
Visits to Goal for examination of prisoners	18
Examinations and reports on Police Constables re fitness for duty	20
Government Examinations (Public Service Board, Railway Department, Education Department, etc.)	69
Examination of new patients at Anti-Tuberculosis Clinic	170
Total number of attendances at Anti-Tuberculosis Clinic	312

No case of poliomyelitis has been notified since the mass inoculation by Salk vaccine.

SECTION III—STATE HOSPITALS AND HOMES

LIDCOMBE STATE HOSPITAL AND HOME — REPORT OF THE MEDICAL SUPERINTENDENT FOR THE YEAR ENDED 31st DECEMBER, 1958

Honorary Visiting Staff —

Honorary Consulting Chest Physician : Vacant.

Honorary Surgeons: W. G. Taylor, M.B., F.R.C.S. (Eng.); A. O. Parker, M.B., B.S., F.R.C.S.

Honorary Consulting Urological Surgeon: H. G. Cummine, M.D., M.S.

Honorary Ophthalmic Surgeons: Eunice Wilson, M.B., B.S., M.Sc., D.C.M.S.; J. H. Findlater, M.B., B.S.

Honorary Dermatologists: E. Kocsard, Sec. 17 (1) (c) of Medical Practitioners' Act; J. L. Coles, M.B., B.S., O.I.H.;

Honorary Orthopaedic Surgeons: C. C. McKellar, M.B., Ch.M., F.R.C.S. (Ed.), F.R.A.C.S. (Orth.); D. W. Whiteway, M.B., B.S.

Honorary Ear, Nose and Throat Surgeon: R. E. Dunn, M.B., B.S., B.Sc.

Honorary Anaesthetist: Vacant.

Honorary Neurosurgeon: G. K. Vanderfield, M.B., B.S.

Honorary Clinic Neurologists: L. S. Bassar, M.B., B.S., M.R.C.P., M.R.A.C.P.; J. L. Allsop, M.B., B.S., M.R.A.C.P.

Honorary Psychiatrist: C. Radeski, M.B., B.S., D.P.M.

Radiologist: Colin R. Cole, M.B., Ch.M.

Dentist: C. S. White, B.D.S.

Staff Administrative —

Medical Superintendent: G. S. Procopis, M.B., M.R.A.C.P.

Deputy Medical Superintendent: G. C. Hughes, M.B., B.S.

Senior Medical Officers: R. B. Holland, M.B., B.S.; B. E. Sharkey, M.B., B.S.

Medical Officers: F. Ofner (Section 17 (1) (c) of Medical Practitioners' Act); D. B. Davis, M.B., B.S.; W. R. Hobart, M.B., B.S.; A. Manheim, (Section 17 (1) (c) of Medical Practitioners' Act); G. R. Gould, M.B., B.S.; T. O'Connell, M.B., B.S.; G. E. Kellerman, M.B., B.S.

Manager: E. C. Barrett, J.P.

Assistant Manager: S. A. Bingham.

Matron: Miss L. V. Lumme.

Nurses: 71.

Other Female Staff: 19.

Attendants: 237.

Other Male Staff: 88.

No. of beds available as a 31st December, 1958: Hospital, 880; Home, 862 — Total: 1,742.

Daily average number of patients and inmates resident:—

1949	..	..	1175	1954	..	..	1216
1950	..	..	1173	1955	..	..	1297
1951	..	..	1162	1956	..	..	1347
1952	..	..	1160	1957	..	..	1374
1953	..	..	1171	1958	..	..	1475

Admissions, Discharges and Deaths:—

								Hospital Section	Home Section	Total
In Institution 1st January, 1958								723	668	1,391
Admissions								1,183	1,861	3,044
Transfers								491	538	1,029
Total treated								2,397	3,067	5,464
Discharges								592	1,853	2,445
Deaths								494	18	512
Transfers								538	491	1,029
In Institution 31st December, 1958								773	705	1,478

Daily Average: 1475

Casual relief — 128 indigent persons were provided with sleeping accommodation for one (1) night and 264 were supplied with a meal.

4,546 cases were examined in the X-ray Department, including examination of staff as prescribed by the award made by Judge Kinsela.

210 major, abdominal and bone, operations, and 52 eye operations were performed.

6,628 specimens were dealt with in the Pathological Department.

643 Electrocardiograms were taken and reported on.

Laundry — 1,661,232 articles were laundered.

Farm — Sales amounted to £2,455 17s. 4d.

The following works were carried out under the direction of the Public Works Department:—

- (1) The new 60-bed T.B. ward has now been occupied.
- (2) The fumigator at the main bathroom is now available for use after a lapse of many, many months.
- (3) Erection of two (2) further cottages for Medical Officers has been completed and plans are in hand for a further three (3).
- (4) An additional drying tumbler was installed at the laundry.
- (5) Dr. Hobart's residence has now been connected to the sewer.
- (6) A new main kitchen and new mess rooms have almost completed.
- (7) An Institute of Pathology has been started and is nearing completion.

Major repairs and renovations were continued by the Building, Construction and Maintenance Branch of the Public Works Department in wards, residences and some allied services.

General maintenance work around wards, dormitories and general buildings was carried out by the hospital staff, under the direction of the Manager, to a limited extent. The area surrounding the new wards 25, 26, 27 and 28 has been improved considerably but cannot be brought to a satisfactory state until adequate grass cutting equipment is supplied.

New equipment has been installed in the X-ray Department and superficial X-ray equipment to be used for dermatological purposes has been purchased and awaits installation.

The Public Service Board has approved of the appointment of an additional Office Assistant to assist in the assessing and collection of maintenance.

The rehabilitation work in Ward 28 amongst those patients suffering from physical disabilities has been advanced a step further by the appointment of an additional Occupational Therapist and the appointment of a Consultant in Physical Medicine. The formation of a branch of Alcoholics Anonymous at the hospital is a forward step in the rehabilitation programme which should prove fruitful.

The Honorary Medical Staff has been increased by the appointment of an additional Dermatologist. Recently Dr. R. B. Holland resumed duty after a year's absence at the Royal North Shore Hospital furthering his studies of Anaesthesia.

The Director General of Public Health approved of the following articles being published in the Medical Journal of Australia — "The adsorptive Capacity of Serum Proteins in Congestive Cardiac Failure" and "Serum Cholesterol Levels in the Aged" by Dr. F. Ofner, and "Senile Changes in the Skin and Visible Mucous Membrane of the Australian Male" by Drs. E. Kocsard, F. Ofner, J. L. Coles and B. Turner.

Arrangements were instituted during the past year for supper to be served to Hospital patients

STRICKLAND CONVALESCENT HOSPITAL, VAUCLUSE — ANNUAL REPORT FOR 1958

Annual report for the year January, 1958, to December, 1958, is submitted hereunder:—

Name of Hospital: Strickland Convalescent Hospital, Vaucuse.

Visiting Emergency Medical Officer: Dr. R. V. Parker.

Matron: Miss E. E. Sainty.

Clerical Staff: Mr. C. F. Murphy.

Trained Nurses: Four.

Assistant Nurses: Three.

Female Domestic Staff: Seven.

Outdoor Attendant: One.

Night Attendant: One.

Attendant Cleaner: One

Patients Bed Accommodation: Male, 40; Female, 70; Inmate Workers, 21.

	Male	Female	Inmate Workers	Total
Remaining in Hospital 31st December, 1957	17	23	21	61
Admitted during 1958	359	447	22	828
Discharged during 1958	358	451	22	831
Deceased .. .. .	..	..	..	..
Remaining in Hospital 31st December, 1958	18	19	21	58
Daily average	20·6	24·2	20·7	65·5

Source of admissions — Patients are admitted from all Metropolitan Hospitals, through the Board of Health, 93 Macquarie Street, and occasionally from Country Hospitals, Newcastle, Broken Hill, etc.

Period of convalescence is normally three weeks, although extensions are necessary in cases of fracture, and Deep-ray treatment, for which patients attend Sydney Hospital, St. Vincent's Hospital, and Prince of Wales, Randwick. Extensions may be given to a total of three months.

Patients attending other Hospitals for Deep-ray treatment, etc.— Sydney Hospital and St. Vincent's Hospital send their own bus or cars daily to take patients to those Hospitals for treatment, and return them to Strickland on the same day.

Working expenditure — Is mainly for food, as diet is an essential factor in building up and rehabilitating patients during convalescence.

Work done by the Public Works Department — The usual maintenance work was carried out by the Public Works Department during the year in the most satisfactory manner. All calls were answered promptly, and all works carried out in the usual workmanlike manner.

Grounds — The grounds, approximately 20 acres on the Harbour front, have been maintained in good order and condition, this work is done by the Outdoor Attendant with the help of six Inmate Workers. All bush fire hazards, etc., have been kept well under control.

LIVERPOOL STATE HOSPITAL AND HOME

This Hospital's activities as a State Hospital serving the Liverpool District ceased during the year.

All acute hospital cases and a number of chronically ill patients were transferred to the newly-constructed adjacent Liverpool District Hospital on 1st July, 1958. The latter Hospital comes under the provisions of the Public Hospitals Act administered by the Hospitals Commission of New South Wales and has assumed the responsibility for local patients.

Later the remaining chronically ill patients were transferred to Garrawarra Hospital, Waterfall, and Lidcombe State Hospital and Home. Inmate workers were also transferred to the latter Hospital with the exception of 18 remaining there as at 31st December, 1958, to assist the management and skeleton staff in closing the institution.

Movement of Patients (all males) —									
Inmates as at 1st January, 1958 .. .. .	..	..	..	..	..	..	..	..	310
Admissions .. .. .	..	..	..	..	..	..	..	..	1,123
									<hr/> 1,433
Discharges .. .. .	..	..	..	..	..	..	..	..	1,247
Deaths .. .. .	..	..	..	..	..	..	..	..	168
									<hr/> 1,415
Inmates remaining as at 31st December, 1958 .. .. .	..	..	..	..	..	..	..	..	18

NEWINGTON STATE HOSPITAL AND HOME — ANNUAL REPORT FOR YEAR ENDED 31st DECEMBER, 1958

- Honorary Medical Staff —
- Neurologist — vacant.
- Ophthalmic Surgeon — Vacant.

- Authorised Staff —
- Medical Superintendent, J. McManamey, M.B., B.S., Syd.; Deputy Medical Superintendent, Lottie Sharfstein, M.B., Ch.M.; Medical Officer, Maire Henley, M.B., B.Ch. Ireland; Manager, V. L. Delaney; Matron, Miss Hoare; Nurses, 70; Dispenser, 1; Senior Clerk, 1; Male Clerk, 1; Female Office Assistants, 2; Storekeeper, 1; Female Office Assistant in Store, 1.
- Dentist visits the Institution fortnightly.
- Male Staff 34; Other Female Staff 24.

X-ray Department

[illegible]

Pathological Laboratory

Specimens submitted for examination 7,844

Operations Performed

Thoracic —

[illegible]

Surgical Ward

Surgical Ward								Male	Female	Total
Admissions —								14	8	22
Thoracic	..	..	..	..	..	..	..	18	4	22
General	..	..	..	..	..	..	..
Total	..	..	..	..	..	..	..	32	12	44

Average Duration of Stay: Thoracic, 27 days; General, 14 days.

The undermentioned schedule illustrates the fluctuation in the number of patients in residence since the year 1942.

Daily Average Number of Patients —

[illegible]

Standard Establishment

Visiting Specialist Staff —

Ear, Nose and Throat Surgeon	..	..	..	..	..	..	1
Urologist .. .. .	..	..	..	..	..	..	1
Thoracic Surgeons .. .. .	..	..	..	..	..	..	2
Dermatologist .. .. .	..	..	..	..	..	..	1
Orthopaedic Surgeon .. .. .	..	..	..	..	..	..	1
General Surgeons .. .. .	..	..	..	..	..	..	2
Physician .. .. .	..	..	..	..	..	..	1
Radiologist .. .. .	..	..	..	..	..	..	1
Ophthalmologist .. .. .	..	..	..	..	..	..	1
Refractionist .. .. .	..	..	..	..	..	..	1
Anaesthetists .. .. .	..	..	..	..	..	..	3
Consultative Panel .. .. .	..	..	..	..	..	..	3
Psychiatrist .. .. .	..	..	..	..	..	..	1
Neuro Surgeon .. .. .	..	..	..	..	..	..	1
							20

Medical and Clerical —

Medical Superintendent	1
Deputy Medical Superintendent	..	..	..	..	..	..	..	1
Surgical Registrar	..	..	..	..	..	..	..	1
Medical Officers	..	..	..	..	..	..	..	5
Secretary ..	..	..	..	..	..	..	..	1
Clerk, Male ..	..	..	..	..	..	..	..	1
Office Assistants	..	..	..	..	..	..	..	2
Shorthand-typiste	..	..	..	..	..	..	..	1
								13

Nursing —

[illegible]

Domestic Staff —

Wardmaids and Housemaids	..	..	..	..	..	..	42
Kitchenmaids .. ..	..	..	..	..	..	..	3
Kitchenmaid — Cook	..	..	..	..	..	..	1
Cooks .. ..	..	..	..	..	..	..	6
Seamstress .. ..	..	..	..	..	..	..	1
Head Waitress .. ..	..	..	..	..	..	..	1
Cleaner (female) .. ..	..	..	..	..	..	..	1
Kitchenmen .. ..	..	..	..	..	..	..	3
							<hr/>
							58

Miscellaneous —

Outdoor Supervisor	1
Male Cleaners	8
Maintenance of grounds, etc., including Flower Gardener	6
Firemen	3
Engineer	1
Handy-man/Carpenter	1
Painter	1
Store	2
Occupational Therapists	2
Physiotherapists	2
Radiographer	1
Radiographer in Training	1
Microbiologists	2
Laboratory Attendant	1
Dispenser	1
Dispensary Assistant	1
Catering Officer	1
Almoner	1
	<hr/> 36
Visiting Clergymen	2
Librarian — employed part-time by R. C. H. Ladies Auxiliary	1
	<hr/> 247
Total	

Staff Shortages

Nursing	15
Domestics	8
Miscellaneous	1

Post-Graduate Certificate in Thoracic Nursing

Nursing — A full twelve months course was held consisting of lectures and demonstrations in the medical and surgical wards, the operating theatre and the domiciliary service, the latter through the courteous co-operation of the Tuberculosis Division. Twelve applicants were enrolled in the course and seven satisfied the examiners. It is proposed to recognize the successful candidates by the presentation of a certificate.

General

Close liaison with the *Lidcombe State Hospital* has continued, visits being made as requested by our medical and surgical personnel to help in assessing thoracic cases. When necessary, transfer of patients was effected to the R. C. H. for investigation and surgery.

Towards the end of the year a branch of the *Citizens' T.B. League* was established at the Hospital and an unoccupied ward was utilized, providing integration of rehabilitation in the Hospital from the commencement of treatment to the activities of the sheltered workshop prior to discharge. Products of excellent quality are being manufactured including wastepaper baskets, magazine tidies, cradles, flower-pot holders, lamp shades.

This same ward is being used by the patients for recreational purposes, and an expanding outpatient department is in the process of establishment there. Further projects are envisaged after the necessary renovations.

Outpatient numbers were slightly lower than those of the preceding year. A reduction in attendances of cases with stable or arrested disease was effected by extending periodic check-ups on such cases to six monthly or even longer intervals. An increase however occurred in outpatients referred by local practitioners for investigation of cough and other respiratory symptoms.

In February, 1958, the *R. C. H. Patients' Club* was formed and during the year various competitions were held — euchre, indoor bowls, housie-housie. The club has been very successful and has provided numerous amenities for the patients.

Late in the year, the *R. C. H. Staff Social Club* was inaugurated. An excellent Concert and Christmas Party, together with competitions in table tennis, euchre, billiards, snooker and darts have further welded the staff together in a friendly informal manner.

In October, 1958, a conference decided that a reduction in bed capacity to 150 should be effected by transfer of patients to other thoracic units and cessation of admissions. This has been to some degree responsible for a slight reduction in some of the statistics as compared with those of the preceding year.

GARRAWARRA HOSPITAL, WATERFALL — ANNUAL RETURN FOR YEAR ENDED 31st DECEMBER, 1958

(1) (a) Number of Beds available as at 31st December, 1958:—

Patients							Male	Female	Total
Vacant Beds .. .. .	..	..	..	..	..	..	145	17	162
Garrawarra .. .. .	..	..	..	..	..	..	35	52	87
Working Inmates .. .. .	..	..	..	..	..	..	95	..	95
							275	69	344

(b):—

						Patients Sanatorium	Patients Garrawarra	Workers	Total
Remaining in Hospital 31st December, 1957	..	..	..	..	..	72	..	79	151
Admitted during 1958	..	..	..	..	..	24	112	295	360
Total treated during 1958	..	..	..	..	..	96	112	374	582
Number discharged during 1958	..	..	..	..	..	94	16	297	407
Number of Deaths during 1958	..	..	..	..	..	2	12	..	14
Remaining in Hospital 31st Decembet, 1958	..	..	..	..	..	..	84	77	161
Average daily number resident	..	..	..	..	..	69	73	76	218

Average residence of discharged patients Waterfall Sanatorium—1,014 days.
Average residence of discharged patients Garrawarra Hospital—50 days.

(c) Out-patients or individuals who received treatment (San.) — 1; Total number of attendances by out-patients (San.) — 13.

(2) Staff as at 31st December, 1958:—

							Posts	Actually Employed	Vacant
Honorary Medical Staff	..	..	..	..	..	..	1	1	..
Medical Staff ..	..	..	..	..	..	..	8	6	2
Managerial and Clerical	..	..	..	..	..	..	4	4	..
Female Nursing	..	..	..	..	..	..	49	32	17
Attendants ..	..	..	..	..	..	..	23	17	6
Male Outdoor	..	..	..	..	..	..	41	27 (1 reliever)	15
Female Outdoor	..	..	..	..	..	..	16	19 (3 relievers)	..

As a result of the decreased demand for hospital beds for patients suffering from tuberculosis Waterfall Sanatorium was closed during the year as a tuberculosis hospital and was re-opened under the name of Garrawarra Hospital, Waterfall to function as a hospital for long term and chronically ill patients of both sexes as well as a unit for hospitalisation of babies up to 2 years of age suffering from abnormalities.

At the conclusion of the year the adaptation of the accommodation for the new purposes stated was in a transition stage with a proportion only of the potential beds occupied.

DAVID BERRY HOSPITAL — ANNUAL REPORT FOR THE YEAR ENDED 31st DECEMBER, 1958

The following statistics summarise activities:—

Indoor Patients

							Male	Female	Total
Patients under treatment at 31st December, 1957..	..	..	..	..	..	..	1	9	10
Admitted during the year 1958	..	..	..	..	..	..	204	234	438
Treated during the year 1958	..	..	..	..	..	..	205	243	448
Discharged during the year 1958	..	..	..	..	..	..	191	224	415
Died during the year 1958	..	..	..	..	..	..	10	7	17
							201	231	432
Remaining in Hospital at 31st December, 1958	..	..	..	..	..	..	4	12	16
Births during the year 1958	..	..	..	..	..	..	16	14	30
Daily average number of resident patients..	..	..	..	..	..	..	6.07	6.21	12.28
Average residence of discharged and deceased patients in days..	..	..	..	..	..	..	10.80	9.33	10.00
Total number of outpatients	..	..	..	..	..	..			268
Working inmates	..	..	..	..	..	..			Nil

Operations Performed

Urological	..	..	..	..	..	..	..	..	4
Head, Face, Sinus, E.N.T.	..	..	..	..	..	..	..	..	21
Abdominal	..	..	..	..	..	..	..	..	43
Orthopaedic	..	..	..	..	..	..	..	..	2
Gyno. and Curette	..	..	..	..	..	..	..	..	15
Dental	..	..	..	..	..	..	..	..	8
Minor	37
Skin Graft	3
Total..	133

X-ray Department

Films used during the year	716
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Standard Staff Establishment

Medical and Clerical —

Medical Officer Part-time	1	
Clerk — Male	..	..	..	..	..	..	1	2
							—	

Female Indoor —

Matron	..	..	..	..	..	..	1	
Head Nurse	..	..	..	..	..	..	1	
Trained Nurses	..	..	..	..	..	..	6	
Nursing Aids	..	..	..	..	..	..	4	12
							—	

Female Outdoors —

Housemaids..	..	..	..	..	..	..	6	
Laundresses	..	..	..	..	..	..	2	8
							—	

Male Indoor —

Attendants	..	..	..	..	..	..	1	1
							—	

Male Outdoors —

Attendants	..	..	..	..	..	..	2	
Cook	..	..	..	..	..	..	1	3
							—	

Total Authorised Staff 26

Comparisons —

							1957	1958
Daily Average							13.32	12.28
Births	..	..	..	..	..	..	22	30
Deaths	..	..	..	..	..	..	15	17
Operations performed	..	..	..	..	..	..	168	133
X-rays	..	..	..	..	..	..	512	716
Out Patients	..	..	..	..	..	..	285	268

LEPER LAZARET — REPORT ON LEPROSY IN NEW SOUTH WALES FOR THE YEAR ENDED 31st DECEMBER, 1958

On the 1st January, 1958, six (6) persons remained under detention at the Lazaret.

No deaths occurred during 1958.

The total number of persons admitted since 1883, when patients were first received (though the notification of leprosy was first made compulsory and the detention of lepers provided for by law only towards the end of 1900), is 237. Distributed under nationalities, the following table shows movements of patients during the year:—

	Admitted	Re-admitted	Discharged	Re-patriated	Died	Remaining in at 31st December, 1958
Whites of European descent—						
New South Wales .. ..	..	..	..	..	..	2
Malta	1	..	..	..	..	3
Coloured patients—						
New South Wales .. ..	..	..	..	..	..	2
Totals	1	..	..	..	..	7

In Lazaret on 1st January (2 males, 4 females)	..	..	..	..	6
Admitted during the year	..	..	..	..	1
Died during the year	..	..	..	..	..
Discharged	..	..	..	..	..
Repatriated	..	..	..	..	..
Readmitted	..	..	..	..	..
Remaining in Lazaret on 31st December (3 Males, 4 Females)	..	..	..	..	7

Every opportunity has been offered to members of the medical profession to visit the lazaret for the purpose of seeing such patients as were formerly under their care, or for study of the disease.

The following statements show the expenditure for the year, and the sources from which it has been defrayed.

Statement showing the Working expenses of the Lazarets (for men and for women) at Little Bay for the year 1958:—

								£	s.	d.
Salaries	..	..	..	..	..	..	..	5,134	15	5
Provisions	..	..	..	..	..	..	..	1,868	12	2
Tobacco and comforts	..	..	..	..	..	..	..	100	12	2
Clothing, etc.	..	..	..	..	..	..	..	369	0	2
Fuel and light	..	..	..	..	..	..	..	493	15	9
Drugs, dressings, etc.	..	..	..	..	..	..	..	64	15	5
Miscellaneous	..	..	..	..	..	..	..	2,006	15	4
								<hr/>		
								10,038	6	5
								<hr/>		

Deduct amounts received in respect of maintenance including contributions by the Commonwealth under the Hospital Benefits agreement £2,379 3s. 9d. nett cost £7,659 2s. 8d. Average number of patients resident, 6.6, being equal to an average of £1,520 19s. 2d. per inmate per annum in 1958.

STATISTICAL SUMMARY—SUMMARY OF EXPENDITURE—RANDWICK AUXILIARY HOSPITAL, STRICKLAND CONVALESCENT HOSPITAL, WATERFALL SANATORIUM, STATE HOSPITALS AND HOMES LIDCOMBE, LIVERPOOL AND NEWINGTON AND DAVID BERRY HOSPITAL FOR THE TWELVE MONTHS ENDED 30th JUNE, 1958

Head of Expenditure	Randwick	Strickland	Waterfall	Lidcombe	Liverpool	Newington	David Berry	Total
Salaries and Payments in the Nature of Salaries	£ 173,748 8 2	£ 13,365 17 5	£ 80,888 14 0	£ 334,304 9 5	£ 131,669 15 8	£ 100,673 5 9	£ 20,022 5 10	£ 854,672 16 3
Provisions	34,989 16 7	9,093 7 5	28,984 7 10	106,625 6 5	31,369 14 7	34,665 15 3	2,895 14 3	248,624 2 4
Drugs, Surgical appliances, Dressings, etc.	9,922 2 6	78 2 7	1,583 0 5	19,568 17 8	16,942 4 8	2,771 0 10	1,066 19 0	51,932 7 8
Fuel, Electricity and Water	7,973 0 3	2,281 1 9	10,573 7 1	24,385 15 5	5,752 15 6	8,290 11 6	1,042 1 4	60,298 12 10
Domestic utilities, including laundry expenses, household lines, clothing, furniture, etc.	6,025 12 0	2,745 13 6	1,333 0 9	32,470 15 1	6,306 7 10	7,119 16 9	} 1,687 0 8	{ 56,001 5 11
General Establishment	14,839 0 6	1,673 2 5	9,304 12 9	24,312 5 3	7,651 7 9	6,520 19 7		
Renewals and Renovations to buildings and plant	16,781 1 3	3,231 10 2	7,295 10 11	26,184 9 3	4,777 5 2	66,247 8 3		
Gross Maintenance Expenditure —	264,279 1 3	32,468 15 3	139,962 13 9	567,851 18 6	204,469 11 2	226,288 17 11	27,839 18 9	1,463,160 16 7
Collections for Sales, maintenance and payments by Commonwealth Government	3,255 16 11	12,745 13 7	2,416 17 7	183,694 0 8	64,483 2 0	49,712 8 10	8,455 3 11	324,763 3 6
Nett Maintenance Cost to State	261,023 4 4	19,723 1 8	137,545 16 2	384,157 17 10	139,986 9 2	176,576 9 1	19,384 14 10	1,138,397 13 1
Average Daily population —	200	70	155	1,418	337	409	13	2,602
Average annual cost per patient on gross maintenance expenditure	1,321 7 11	463 16 10	902 19 9	400 9 2	606 14 8	553 5 6	2,141 10 8	562 6 5
Average weekly cost per patient on gross maintenance expenditure	25 6 10	8 17 11	17 6 4	7 13 7	11 12 9	10 12 2	41 1 5	10 15 9
Average annual cost per patient on nett maintenance cost to State	1,305 2 4	281 15 2	887 7 10	270 18 4	415 7 10	431 14 7	1,491 2 8	437 10 2
Average weekly cost per patient on nett maintenance cost to State	25 0 7	5 8 1	17 0 4	5 3 11	7 19 4	8 5 7	28 11 11	8 7 10
Capital expenditure not included in maintenance	10,221 16 6	.....	8,493 5 3	146,009 7 4	.....	2,559 13 10	.....	167,284 2 11

SECTION IV—PATHOLOGICAL LABORATORIES

ANNUAL REPORT OF THE DIRECTOR OF PATHOLOGICAL LABORATORIES FOR THE YEAR ENDED 31st DECEMBER, 1958

BEING A SUMMARY OF THE ACTIVITIES OF THIS DIVISION OF THE DEPARTMENT OF PUBLIC HEALTH, N.S.W., IN THE ABOVE PERIOD

Aims and Scope of Work

This section is charged with a broad range of tasks in diagnostic and general public health pathology and hygiene. It is concerned with the prevention, identification and control of disease in humans and undertakes a wide variety of investigations in these matters on behalf of the following:—

The numerous Divisions of the Department of Public Health.

Six State Hospitals and Homes.

The Metropolitan Medical Officer of Health. Also the Medical Officers of the various country Health Districts.

The Commonwealth Government.

Numerous State Government Departments (*e.g.*, Prisons, Public Works, Commissioner of Police, etc.).

Private medical practitioners throughout the State (for patients unable to afford private fees).

Public Hospitals: also other Public Institutions (except State Hospitals — shown above).

Psychiatric Centres and Mental Hospitals.

Municipal and Shire Councils of N.S.W.

As in many previous years a number of factors have continued to hamper the work and aims of this Division in its desire to provide a full, up-to-date laboratory service. The most important of these (to be considered more fully towards the end of this report) are the cramped accommodation with consequent inadequate bench and storage space, serious lack of amenities for staff, imperfect control of ventilation and summer heat, as well as the dust, noise and vibration inevitably associated with the part of the city in which the central Laboratory stands. Also to be considered is the remoteness of the Laboratory from hospitals and the effect of this in adding to the difficulties of providing a fully satisfactory diagnostic service. In addition the foregoing matters make it impossible to provide certain services (such as animal tests for human pregnancy, a virus research section and a routine investigation of preserved foods) which should form part of the duties of a modern laboratory.

Individual Technical Sections

The following notes are designed to indicate trends, developments and certain shortcomings experienced during the year in the various sections of work. Details of actual volume are shown in compact form at the end of this Report.

BACTERIOLOGY

Requests for sensitivity tests of various organisms have continued to increase (being an advance of more than 25 per cent. over the previous year's figures) and this class of test has now taken what seems to be a permanent place as one of the major charges on the bacteriologist's time.

The continued low incidence of diphtheria in the community has again led to a reduction in requests for examinations of swabbings, while virulence tests have now become almost rare. There is every reason to suppose that the current favourable position may become permanent, with proper co-operation between Health and Local Government Authorities. The greater proportion of examinations under this heading are "prophylactic" — from the throats of persons about to enter Institutions.

There is every reason to believe that the present practice of carrying out routine cultures on specimens submitted for T.B. examination is appreciated by practitioners, for the total of cultures and animal inoculations for the detection of this organism has risen by over 50 per cent.

Some factors in the way of continuing and especially of expanding this programme (covered by later comment) are difficulties which have again occurred in the management of laboratory animals in present conditions. Chief of these are premature deaths of animals, imperfect temperature control, irregular and uncertain supplies of green feed, etc. The testing of milks (for T.B. and *Brucella Abortus* — undertaken for the N.S.W. Milk Board) must also be considered in the light of the foregoing.

Serological investigation of symptomless fevers is the subject of markedly increasing requests, showing that such conditions continue to perplex the clinician. It is clear that much patient research is necessary not only to assist in early diagnosis of these infectious fevers but also to clarify the significance of low titre positivity (commonly found in this community) in some of the agglutination tests. The practice in this Laboratory is to submit such sera to a "battery" of investigations, including those for the common Salmonellas, B. Abortus, Weil-Felix, Paul-Bunnell, etc.

Recent publicity has been followed by wider general interest in food hygiene, quality of preserved foods, purity of water supplies, etc., as is shown by the greatly increased number of submissions of potable waters, samples of which were more than double those received in 1957. Continued public education is still necessary — very importantly on the laboratory investigation of these matters. It has been a regrettably common experience for example for suspect food to be submitted in an outbreak of supposed food poisoning, without a thought being given to the vital necessity of securing some vomited or excreted material from the sufferers.

HUMAN PATHOLOGY

It is in this busy section that the greatest difficulties are still found in handling the increasing volume of material submitted. The limited space available has presented for a long time a problem which is now obviously insoluble in the present building. Storage, bench, floor and every kind of working space is so restricted that an increase of staff failed to ease the burden. It is hoped that permanent relief in this vital section may be realised soon in the prospects to be mentioned later.

VENEREAL SEROLOGY

Work in this Laboratory has continued to be of a high standard and in general the conditions and accommodation, being the best in the whole of this Division, give substantial aid in handling the large numbers of submissions. In the post-war years figures tended to fall substantially, due partly to increased confidence in the new methods of treatment and partly to the practice of many hospitals of carrying out "screen" tests and submitting only those showing a positive or doubtful result. At present there is a definite tendency for the figures to rise again — 5 per cent. over the past year.

BIOCHEMISTRY

In common with most others this Laboratory has felt the increasing demand for the services of the biochemist. The new and seemingly satisfactory working space provided in the previous year has allowed expansion to take place but on present prospects must inevitably become inadequate before long. Additional staff and much modern equipment are needed in this branch in order to give the highest standard of service. Total procedures on practically all sections have grown through the year, with particular emphasis on those concerned with liver function.

A YEAR OF CLIMAX

Perusal of the records will reveal that the question of shortage of Laboratory accommodation has been the subject of annual comment in these Reports for almost 40 years. This shortage became very acute during the 'thirties when, in spite of multiplications in the volume of work, the Director reported on several occasions that "further expansion was impossible" without additional room. The position became greatly aggravated in the post-war years due to several influences, the chief of which have been:—

Rapid increase in the population of the State.

Increased tendency of practitioners and public to look to this Department for their pathology service.

Rapid increase of hospital beds throughout the State with inadequate laboratory facilities.

New therapeutics and clinical trends, as well as "drives" in connection with various sections such as T.B., Maternal and infant morbidity, Venereal Diseases, etc.

It is very obvious that the capacity of this Laboratory is now so grossly overtaxed that efficiency is impaired, investigations of specimens are necessarily limited, and it is very difficult to provide a satisfactory diagnostic service. One hopes that the new Institute nearing completion at Lidcombe may take over all clinical pathology before many months of the new year have passed.

TABLE

Showing the Routine Examinations made for the various Branches of the State Department of Public Health, other Government Departments, Subsidised Hospitals, etc.:—

	Number of examinations Comparative Statement	
	1957	1958
Department of Public Health—		
Head Office Submissions	30,737	31,889
David Berry Hospital	130	268
Lidcombe State Hospital and Home	3,065	3,117
Liverpool State Hospital and Home	4,232	3,088
Newington State Hospital and Home	28	12
Waterfall, Garrawarra Hospital	211	530
Medical Officer of Health, Metropolitan District	27	..
Medical Officer of Health, Hunter River District	2	..
Randwick Chest Hospital	1,282	1,380
Rachel Forster Hospital	1,934	1,189
Commonwealth Government	1,528	1,588
State Departments—		
Agriculture .....	..	..
Education .....	..	..
Child Welfare	563	467
Government Stores	1	..
Milk Board	323	293
Police Department	2,361	3,351
Prisons Department	3,043	2,748
Railway Department .....	..	10
Miscellaneous Government Departments	68	124
Private Practitioners	34,785	36,973
Public Hospitals and Institutions. (other than State Hospitals)	68,620	79,741
Municipal and Shire Councils	536	1,210
Mental Hospitals	9,117	10,233
Darlinghurst Reception House	17	26
Total Examinations (General)	162,610	178,237
Rats for Plague	290	355
	162,900	178,592

In the following Statement the Routine Work is divided into sections showing the various examinations made:—

	Number of Examinations Comparative Statement	
	1957	1958
Agglutination Tests—		
Typhoid (Widal)	333	447
Typhus (Weil Felix)	354	450
Para Typhoid A and B	642	882
Brucella Abortus	171	223
Glandular Fever (Paul and Bunnell)	209	253
Miscellaneous (Weil's Disease, etc.) .....	..	2
Bacteriology—		
Diphtheria Swabbings	1,264	1,020
Diphtheria Toxicity	44	28
Haemolytic Streptococci	57	35
Vincent's Angina	1	3
Fungi (Tinea, Monilla, etc.)	25	18
Dysentery	1	12
Food Poisoning (Salmonella)	66	..
Food Poisoning (Others)	3	70
Typhoid (Cultures)	897	2,870
Gonorrhoea (Smear and Urine)	3,254	3,213
Leprosy	75	49
Tuberculosis (Smears)	1,196	1,257
Tuberculosis (Cultures and G.P.I.)	772	1,202
Tetanus .....	..	31
Vaccines (Autogenous vacc. from sputa, urine, etc.)	154	161
C.S.F. Cultures	3	1
C.S.F. Cell Counts	94	118
Antibiotic Sensitivity	4,422	5,648
Human Bacteriology unclassified	2,601	2,738
Urines General Examination	528	162
Food Bacteriology	103	155
Water Bacteriology	553	1,202
Milk (T.B. and B.A.)	323	293
Drugs, etc., Sterility	27	18

TABLE — continued

										Number of Examinations Comparative Statement	
										1957	1958
Bacteriology (continued)—											
Chemical Closet Contents	..	..	..	..	..	..	..	..	..	43	..
Disinfectants (Rideal Walker)	..	..	..	..	..	..	..	..	..	..	6
Utensil Swabbings	..	..	..	..	..	..	..	..	..	..	..
Ecto Parasites (Fleas, mites, etc.)	..	..	..	..	..	..	..	..	..	95	116
Endo Parasites (Worms, Ova, Cysts, etc.)	..	..	..	..	..	..	..	..	..	108	126
Trichomonas	..	..	..	..	..	..	..	..	..	..	1
Syphilis Spirochaetes	..	..	..	..	..	..	..	..	..	296	307
Miscellaneous Bacteriology	..	..	..	..	..	..	..	..	..	93	30
Epidemic Staphylococcus Aureus	..	..	..	..	..	..	..	..	..	239	678
Medico-Legal Examination	..	..	..	..	..	..	..	..	..	2,402	3,205
Histo-Pathology—											
Human Tissue	..	..	..	..	..	..	..	..	..	58,600	67,170
Malignant cells	..	..	..	..	..	..	..	..	..	17	16
Miscellaneous	..	..	..	..	..	..	..	..	..	..	..
Haematology—											
Full and Differential Counts	..	..	..	..	..	..	..	..	..	3,035	3,247
Group and Rh factor	..	..	..	..	..	..	..	..	..	456	102
Malaria	..	..	..	..	..	..	..	..	..	1	2
Miscellaneous	..	..	..	..	..	..	..	..	..	9	149
Serology—											
Quantitative Wassermann	..	..	..	..	..	..	..	..	..	839	906
Syphilis Wassermann	..	..	..	..	..	..	..	..	..	20,893	21,691
Syphilis Kahn	..	..	..	..	..	..	..	..	..	20,145	20,807
Syphilis Meinicke Clarification Test	..	..	..	..	..	..	..	..	..	6,866	6,902
Gonorrhoea (G.C.F.T.)	..	..	..	..	..	..	..	..	..	2,263	1,032
Hydatid (C.F.T.)	..	..	..	..	..	..	..	..	..	68	51
V.D.R.L.	..	..	..	..	..	..	..	..	..	20,893	21,535
Biochemistry—Cerebo-Spinal Fluid for—											
Colloidal Gold Test	..	..	..	..	..	..	..	..	..	729	838
Total Protein, Globulin	..	..	..	..	..	..	..	..	..	287	474
Chlorides	..	..	..	..	..	..	..	..	..	75	103
Sugar	..	..	..	..	..	..	..	..	..	54	65
Takata Ara Test	..	..	..	..	..	..	..	..	..	..	..
Miscellaneous	..	..	..	..	..	..	..	..	..	16	..
Biochemistry (Serum etc.)—											
Blood for Sugar	..	..	..	..	..	..	..	..	..	60	43
Blood for Sugar Tolerance	..	..	..	..	..	..	..	..	..	98	285
Blood for Urea	..	..	..	..	..	..	..	..	..	312	354
Blood for Uric Acid	..	..	..	..	..	..	..	..	..	166	227
Blood for Creatinine	..	..	..	..	..	..	..	..	..	44	40
Blood for Cholesterol	..	..	..	..	..	..	..	..	..	185	215
Blood for Total Protein A/G Ratio	..	..	..	..	..	..	..	..	..	429	727
Blood for Bromides	..	..	..	..	..	..	..	..	..	13	25
Serum Acid Phosphatase	..	..	..	..	..	..	..	..	..	156	186
Liver Function Test—T.T. and Z.T.	..	..	..	..	..	..	..	..	..	700	1,054
Alkaline Phosphatase	..	..	..	..	..	..	..	..	..	436	555
Bilirubin and V.D.B.	..	..	..	..	..	..	..	..	..	652	968
Cephalin Cholesterol F.T.	..	..	..	..	..	..	..	..	..	243	81
Urines for Sugar and Albumin	..	..	..	..	..	..	..	..	..	316	256
Urines for Urea	..	..	..	..	..	..	..	..	..	72	117
Urines General	..	..	..	..	..	..	..	..	..	672	325
Test Meal Specimens	..	..	..	..	..	..	..	..	..	579	83
Calculus	..	..	..	..	..	..	..	..	..	360	100
Faeces—Fats, etc.	..	..	..	..	..	..	..	..	..	194	160
Miscellaneous Chemical Examinations	..	..	..	..	..	..	..	..	..	229	316
										162,610	178,237

The following Table indicates the rats and mice destroyed and examined at Sydney and Newcastle during the Year ending 31st December, 1958:—

1958—Sydney					1958—Newcastle				
Month	R.R. Rattus	R.R. Norveg- icus	M. Musculus	Total	Month	R.R. Rattus	R.R. Norveg- icus	M. Musculus	Total
January	5	..	..	5	January	..	..	..	..
February	9	7	..	16	February	..	..	..	..
March	21	18	..	39	March	..	..	..	..
April	12	25	..	37	April	..	..	..	..
May	16	13	..	29	May	..	..	..	..
June	26	19	..	45	June	..	..	..	..
July	39	16	..	55	July	..	..	..	..
August	7	9	..	16	August	..	..	..	..
September	16	15	1	32	September	..	..	..	..
October	15	12	..	27	October	..	..	..	..
November	13	12	..	25	November	..	..	..	..
December	16	13	..	29	December	..	..	..	..
Total	195	159	1	355		..	..	..	..

